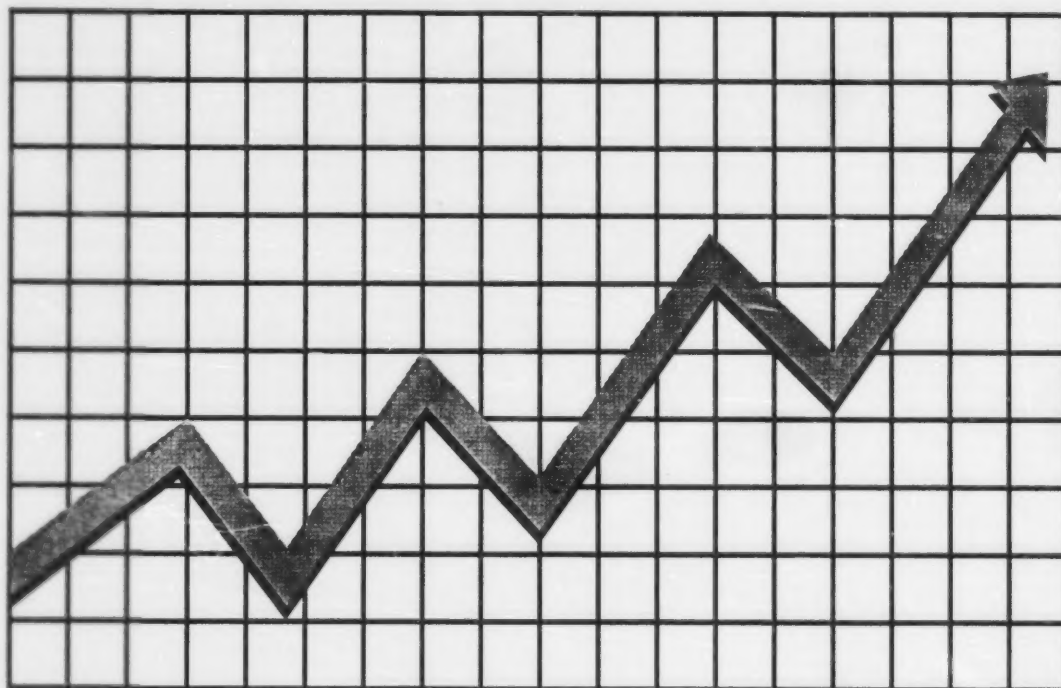




Saskatchewan
Post-Secondary
Education and
Skills Training

Saskatchewan Labour Market Trends Report



Prepared by:
Sask Trends Monitor

January 2000

This report was commissioned by Saskatchewan Post-Secondary Education and Skills Training.
The conclusions do not necessarily reflect the opinion of Saskatchewan Post-Secondary
Education and Skills Training or the provincial government.

Saskatchewan Post-Secondary Education and Skills Training

January 2000 ©

Reproduction of this report or parts thereof is permitted provided appropriate
acknowledgement is given.

Saskatchewan Labour Market Trends

A report for:

Saskatchewan Post-secondary Education and Skills Training

prepared by:
Doug Elliott
Sask Trends Monitor

January, 2000



Table of Contents

Executive Summary	v
1.0 Introduction	1
2.0 Labour Market Trends	3
2.1 General Indicators	5
2.2 Age, Gender, Family Status	9
2.3 Industry, Occupation, and Type of Job	13
2.4 Hours of Work	20
2.5 Job Tenure and Status	26
2.6 Educational Attainment	29
2.7 Sub Provincial Regions	36
3.0 Population and Labour Force Projection	39
3.1 Population Projection	40
3.1.1 Total Population	
3.1.2 Registered Indian Population	
3.1.3 Non-Indian Population	
3.1.4 Summary	
3.2 Labour Force Participation Rates	54
3.2.1 Constant Participation Rates	
3.2.2 Non-Indian Participation Rates	
3.2.3 Indian Participation Rates	
3.3 Labour Force Supply Forecast	63
4.0 Implications	67
4.1 Economic Impacts	68
4.2 Increasing Indian Participation Rates	71
4.3 Increased Participation Rates Among Older Workers	73
4.4 Short Term Skill Shortages	75
4.5 Issues that Remain Outstanding	76

Data Appendices

1. Saskatchewan Labour Market Characteristics
2. Population and Labour Force Forecast Detail
3. Non-Indian Participation Rate Forecast by Age Group and Sex

List of Tables

Table 3.1	Assumed Fertility Rates for Population Projections	40
Table 3.2	Projected Population, Various Scenarios	44
Table 3.3	Projected Population, Registered Indians, Various Scenarios	51
Table 3.4	Derived Non-Indian Population, 15 Years and Older, Various Scenarios	52
Table 3.5	1998 Labour Force Participation Rates in Saskatchewan	55
Table 3.6	Non-Indian Labour Force With Constant and Increasing Participation Rates	57
Table 3.7	Labour Force Participation Rates, Registered Indian Population, 1996	59
Table 3.8	Registered Indian Labour Force with Various Participation Rate Scenarios	61
Table 3.9	Potential Labour Force, Various Scenarios	63
Table 4.1	Annual Rates of Increase, Employment, GDP, and Labour Productivity	69

List of Figures

Figure 2.1	Saskatchewan Labour Force and Employment, 1976 to 1998	5
Figure 2.2	Saskatchewan Unemployment Rate, 1976 to 1998	6
Figure 2.3	Canada and Saskatchewan Labour Force Comparison, 1976=100	6
Figure 2.4	Participation and Employment Rates, Saskatchewan, 1976 to 1998	7
Figure 2.5	Comparison of Employment Rates, Canada and Saskatchewan, 1976 to 1998	7
Figure 2.6	Employment Rates, Saskatchewan Men and Women, 1976 to 1998	9
Figure 2.7	Employment Rates Among Women, Canada and Saskatchewan, 1976 to 1998	10
Figure 2.8	Employment by Age Group, Saskatchewan, 1976 to 1998	10
Figure 2.9	Employment Rates by Age Group, Saskatchewan, 1976 to 1998	11
Figure 2.10	Employment by Family Type, Saskatchewan, 1976 to 1998	12
Figure 2.11	Employment by Sector, Saskatchewan, 1987 to 1998, 1987=100	13
Figure 2.12	Average Annual Increase in Employment, Goods Producing Sector, Canada and Saskatchewan, 1988 to 1998	14
Figure 2.13	Average Annual Increase in Employment, Services Producing Sector, Canada and Saskatchewan, 1988 to 1998	16
Figure 2.14	Employment by Occupation Group, Average Annual Increase from 1988 to 1998, Canada and Saskatchewan	17
Figure 2.15	Self Employment in Saskatchewan, 1987 to 1998	18
Figure 2.16	Employees by Public and Private Sector, Saskatchewan, 1987 to 1998	19
Figure 2.17	Full and Part Time Employment, Main Job, Saskatchewan, 1976 to 1998	20
Figure 2.18	Part Time Employment as a Percentage of Total Employment, Canada and Saskatchewan, 1976 to 1998	21

Figure 2.19	Actual Hours per Week (at all jobs) for Part Time Employees, 1976 to 1998, Saskatchewan	21
Figure 2.20	Involuntary Part Time Employment as Percentage of All Part Time Employment, Saskatchewan, 1976 to 1998	22
Figure 2.21	Persons Employed More than 40 Hours per Week (at all jobs), Saskatchewan, 1976 to 1998	22
Figure 2.22	Average Hours of Work per Week, Full and Part Time Workers in Saskatchewan	23
Figure 2.23	Number of Multiple Job Holders, Saskatchewan, 1987 to 1998	24
Figure 2.24	Multiple Job Holders as a Percentage of Total Employment, Canada and Saskatchewan	24
Figure 2.25	Number of "Jobs" Compared with Overall Employment, Saskatchewan, 1987 to 1998	25
Figure 2.26	Average Job Tenure, Canada and Saskatchewan, 1976 to 1998	26
Figure 2.27	Employment by Job Tenure (years with the same employer), Saskatchewan, 1976 to 1998	27
Figure 2.28	Average Tenure (in years) by Age Group, Saskatchewan	27
Figure 2.29	Temporary Employment as a Percentage of All Employment, by Age Group, Saskatchewan, 1998 ..	28
Figure 2.30	Employment by Level of Completed Education, Saskatchewan, 1976 to 1998	30
Figure 2.31	Average Annual Increase in Employment, by Completed Education Level, 1990 to 1998, Canada and Saskatchewan	30
Figure 2.32	Employment Rates by Level of Completed Education, Saskatchewan, 1990 to 1998	31
Figure 2.33	Employment Rates by Completed Education, Age Group, and Gender, Saskatchewan, 1998	33
Figure 2.34	Percent of Employment by Post-Secondary Education Level, 1997 and 1998 Average	35
Figure 2.35	Saskatchewan Economic Regions	36
Figure 2.36	Share of 1998 Employment, Economic Regions	37
Figure 2.37	Average Annual Increase in Employment, 1987 to 1998, Saskatchewan Economic Regions	37
Figure 3.1	Methodology and Report Organization for Forecasting Population and Labour Force Supply	39
Figure 3.2	Calculated "Survival Rates" for Five Year Migration Pattern, Selected Age Groups	41
Figure 3.3	Net Interprovincial Migration, Saskatchewan, 1986 to 1998	41
Figure 3.4	Comparison of Total Population According to the Three Scenarios	43
Figure 3.5	Comparison of Population Projections for Saskatchewan	45
Figure 3.6	Projected Population for Selected Age Groups, Five Year Migration Scenario	46
Figure 3.7	Assumed Survival Rates, Ten Year Migration Scenario, Registered Indian Population	48
Figure 3.8	Comparison of Registered Indian Population Projection According to the Three Scenarios	49
Figure 3.9	Comparison of Population Projections for the Saskatchewan Registered Indian Population	50
Figure 3.10	Projected Population for Selected Age Groups, Registered Indians, Ten Year Migration Scenario ..	50
Figure 3.11	Potential Labour Force with Constant Participation Rates	55
Figure 3.12	"Age Adjusted" Participation Rate Projection, Non-Indian Population	57
Figure 3.13	Non-Indian Potential Labour force, Effect of Increasing Participation Rates	58
Figure 3.14	Assumed Participation Rates in 1998, Registered Indian Population Compared with the Non-Indian Population	60

Figure 3.15	Three Scenarios for Participation Rates in the Registered Indian Population	61
Figure 3.16	Potential Indian Labour Force under Various Scenarios, 1998 to 2018	62
Figure 3.17	Potential Labour Force with Constant Participation Rates	64
Figure 3.18	Potential Labour Force with Increasing Participation Rates	64
Figure 3.19	Comparison of Potential Labour Force, 1998 and 2013, by Indian Status	65
Figure 3.20	Comparison of Potential Labour Force, 1998 and 2013, by Gender	66
Figure 3.21	Comparison of Potential Labour Force, 1998 and 2013, by Age Group	66
Figure 4.1	Average Hours Worked per Week per Employee (at all jobs), Saskatchewan, 1976 to 1998	68
Figure 4.2	Relationship Between Employment and the GDP, Saskatchewan	69
Figure 4.3	Employment Rates and Formal Education Levels, Saskatchewan 1996, Aboriginal and Non-Aboriginal Populations	71
Figure 4.4	Proportion of the Population 15 to 24 Years of Age who Attended School in the Eight Months Prior to the Census	72
Figure 4.5	Effect of Additional Growth in Labour Force Participation Rates for Older Workers	74

EXECUTIVE SUMMARY

The main findings from this report are summarized below in point form.

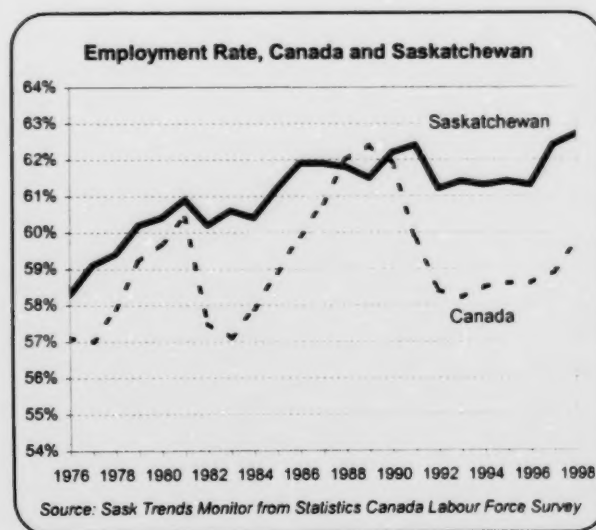
Section 2 of the report describes trends in the Saskatchewan labour market within the context of the Canadian labour market.

Total Employment

From 1976 to 1987, employment in Saskatchewan grew significantly, growing at the same rate as in Canada as a whole.

Starting in the mid 1980s, however, a series of negative shocks drove the economy into recession, leading to a period of employment decline/stagnation until the low point was reached at 450,500 in 1992. Since 1992, there has been relatively slow growth in employment in spite of strong economic growth. The 1987 employment peak of 467,500 was finally surpassed ten years later when employment reached 474,200 in 1997.

Throughout the two decades the employment rate (the proportion of the population employed) remained effectively constant as interprovincial migration fluctuated to keep the size of the working age population in step with available employment. In contrast, Canada's employment rate is generally lower than the Saskatchewan rate and fluctuates with the business cycle.

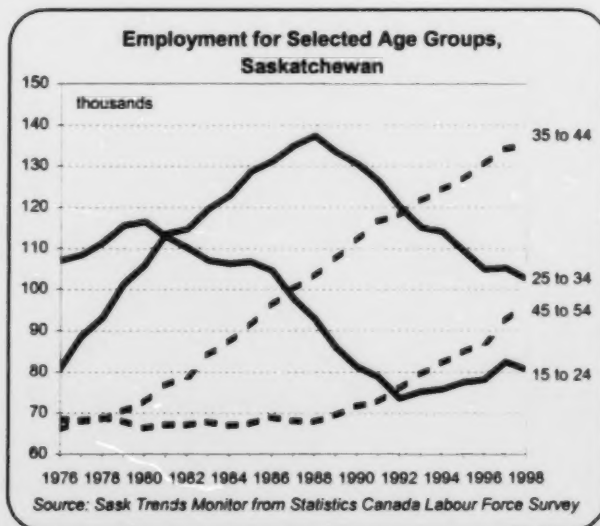


Age and Gender

In the past twenty two years, employment among women has increased while employment among men has been stable or declining. The difference in the employment rate is now 14% compared with 34% in 1976.

The natural aging of the population has meant increasing employment among those in the 35 to 54 age group and a decline among those 15 to 24. Employment in the 25 to 34 age group peaked in the mid 1980s and has been declining ever since.

All of these changes in employment levels are a consequence of changes in the population demographics — the employment rate among those 25 to 54 has been on an upward trend for the past two decades. In spite of a trend toward early retirements, the employment rate among those 55 to 64 has not changed significantly since the 1970s.



Industry and Occupation

In the past ten years there has been a slow but steady shift away from jobs in goods-producing industries into jobs in service-producing industries. The change is not dramatic; 30% of the jobs in 1998 were in goods-producing industries compared with 33% in 1987.

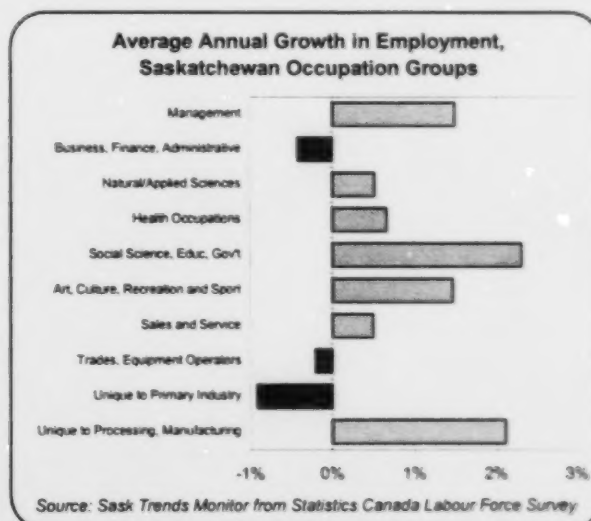
Within the goods-producing sector, employment in the resource sector (forestry, mining, oil and gas) and the manufacturing sector has grown in the past ten years.

Employment has fallen in agriculture, construction and utilities.

Within the service-producing sector, employment has grown in all but three subgroups — retail trade, public administration, and “other” services. It has grown most substantially in two subgroups — “professional, scientific and technical service” and “management, administration, and other support”.

The four fastest growing occupation groups in the province are — managers, occupations in social science/government

service/religion, occupations unique to processing/manufacturing/ utilities, and occupations in art/culture/recreation/sport. The occupational groups that include clerical staff and farmers have shrunk in the past ten years.



Excluding farmers, the number of self-employed individuals has increased slowly in the past ten years — from 50,000 in 1987 to 64,000 in 1998. Public sector employment has been effectively flat for the past twelve years — all of the variation in employment has occurred in the private sector.

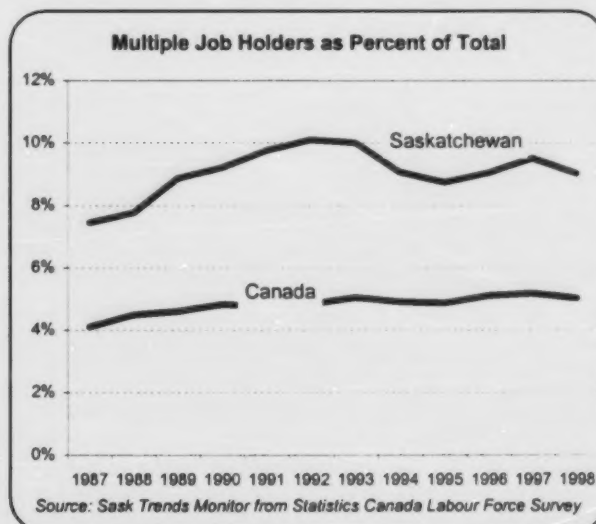
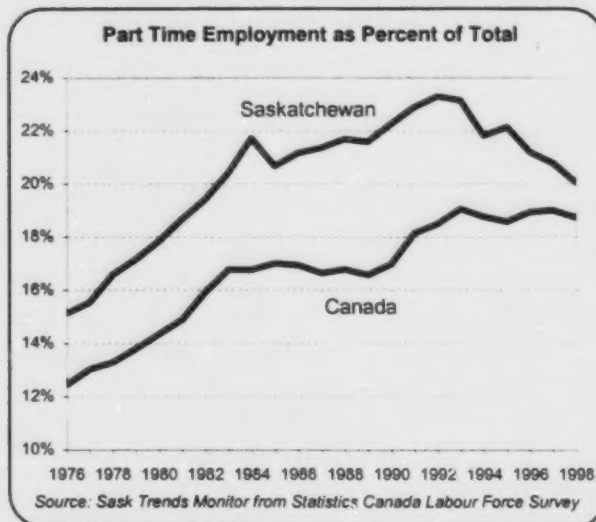
Hours of Work

After peaking at just over 23% of employment, the proportion of jobs that are part-time has declined to 20% in 1998. Part time employees are, however, working longer hours than they used to.

Until recently there was an upward trend in “involuntary” part-time work.

The average hours per week (at all jobs) has fluctuated near 36½ for the past fifteen years.

Saskatchewan has the highest proportion of multiple job holders (persons simultaneously holding more than one job) in Canada. Some but not all of these are farmers either at their main job or their second job.



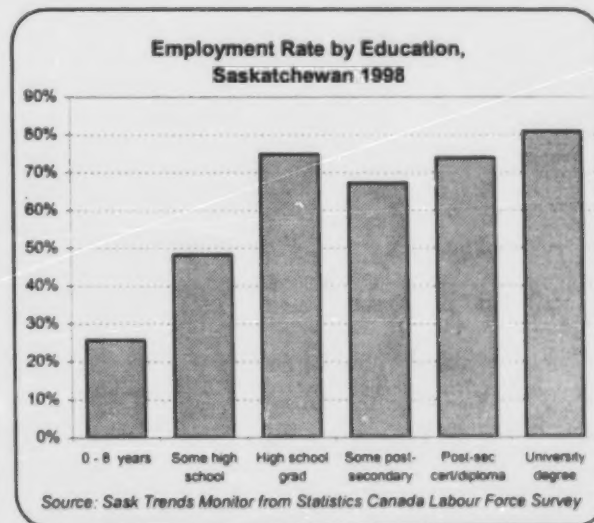
Job Tenure

In spite of reports that career changes are becoming more frequent, the average tenure (time spent with the same employer) has risen rather than fallen over the past two decades. From an average of 9.3 years in 1978, average tenure increased to 10.1 years in 1998.

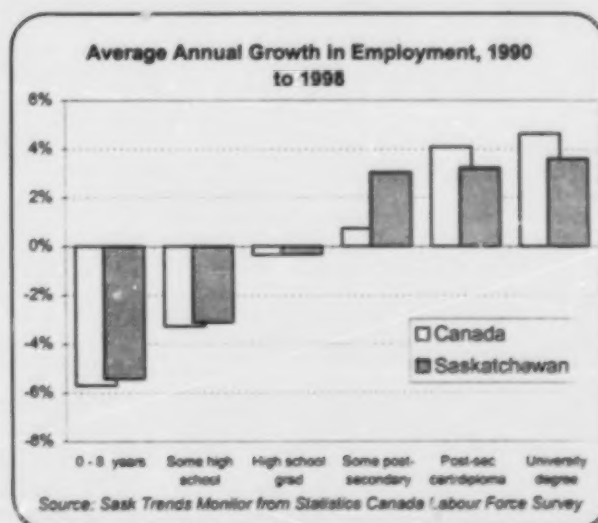
Job tenure averages about 2 years longer in Saskatchewan than in Canada, at least partly because of the high proportion of farmers in the province.

Educational Attainment

With one exception, there is a clear linkage between employment rates and educational attainment. The lowest employment rate (26% in 1998) is among those with less than Grade 9 and the highest (81%) is for those with a university degree. The one exception is for high school graduates who have an equivalent employment rate (75%) to those with a post-secondary certificate/diploma. This pattern is independent of age and gender.



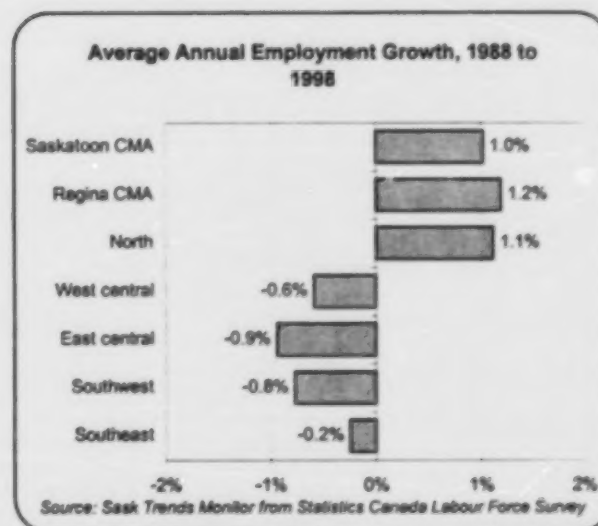
From 1990 to 1998, strong employment growth was evident among those with at least some post-secondary education .



Regions

Only three of the Saskatchewan's seven economic regions have shown employment growth from 1987 to 1998. The three regions are the two Census Metropolitan Areas of Regina and Saskatoon and the North (including Prince Albert).

The decline is the largest in the East Central region which contains the city of Yorkton.



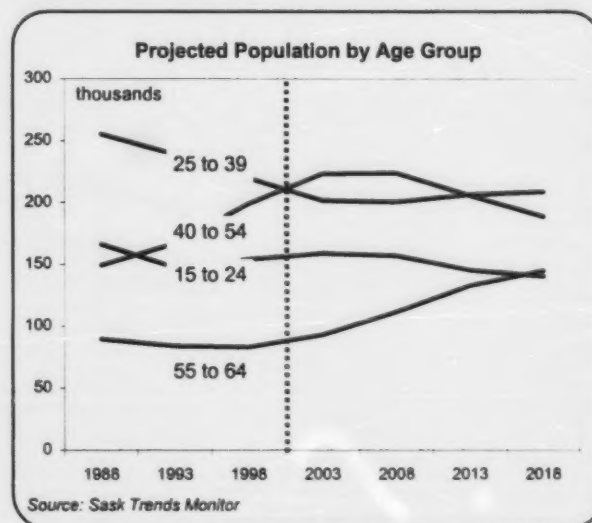
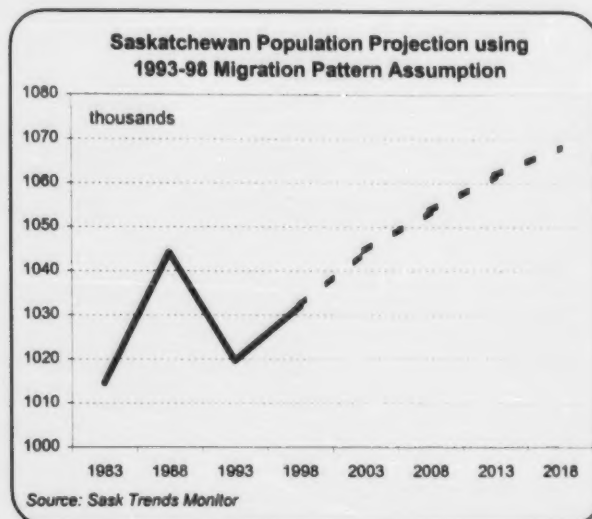
Section 3 of the report looks at demographic and inter-provincial migration trends in the province to forecast the size of the potential labour force over the next twenty years. Because of the different demographic trends in the Aboriginal population generally and the Registered Indian population specifically, the projection is done separately for the total population and the Registered Indian population. The findings from this section are summarized below.

Population

With a migration pattern similar to the one experienced over the past five years and constant fertility/mortality rates, the provincial population will grow very slowly in the next 20 years, averaging an increase of only 0.2% per year.

The population in the dominant labour force age group (15 to 64) will increase to 2008 and then begin a slow decline.

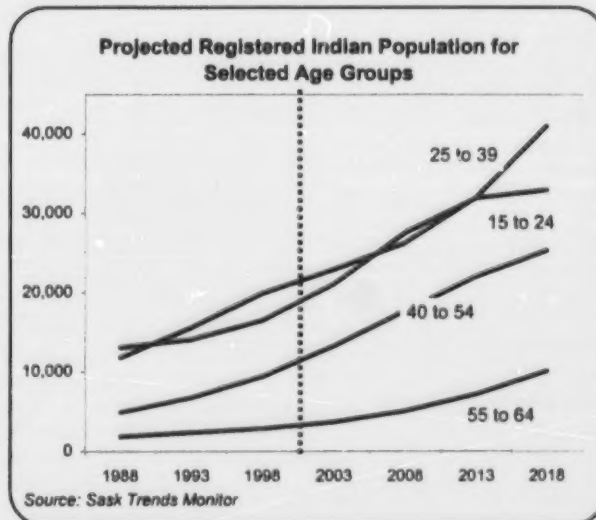
Over the forecast period, the dominant age group in the labour force will switch from the current 25 to 39 group to the 40 to 54 age group.



Registered Indian Population

Assuming a migration pattern similar to the one over the past ten years, the Registered Indian population, will grow at an average annual rate of 3.6% over the next twenty years. The population in the 15 to 64 age group more than doubles over the forecast period.

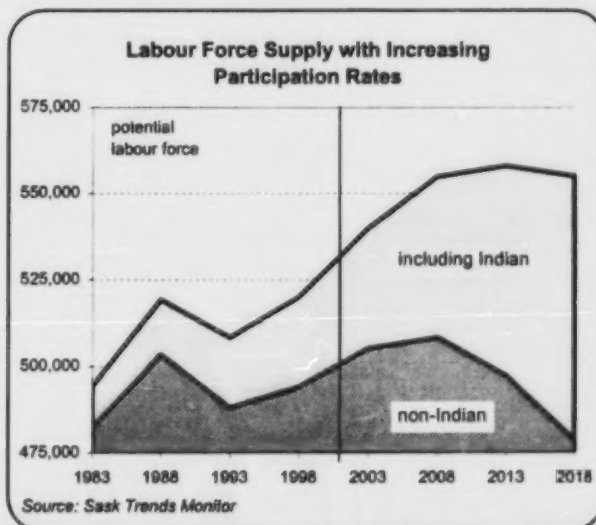
The Registered Indian population will become an increasingly important part of the 15 to 64 age group, increasing from 7% in 1998 to 16% in 2008.



Size of the Potential Labour Force

Even with increasing participation rates in both the Indian and non-Indian population, the size of the potential labour force will decline after 2013.

The labour force in 2013 will be increasingly dominated by older workers and the Registered Indian population will grow from the current proportion of 5% of the labour force to 11%.



1.0 INTRODUCTION

We live in an era where governments promise in election campaigns to "create jobs", employers promise to avoid layoffs during restructuring, new projects are promoted because they create permanent positions, every decline in the unemployment rate is applauded, and the public often cites job creation as their number one priority. Indeed, employment is often cited as the measure of economic performance for the economy.

The prediction of a complete reversal in this situation — a shortage rather than a surplus of workers — will probably be met with scepticism if not outright disbelief. Unlike some other future scenarios, however, this one is much more likely to occur because it is driven more by demographics than by economics. A paradigm shift in the labour market is under way. Saskatchewan will be one of the first provinces in Canada to feel the change because the average age of the population is higher here than in other provinces.

This tightening of labour force supply is coming to the Saskatchewan labour market; indeed, there are signs that it has already arrived. For those who doubt the premise of a declining labour force supply, this report can serve as an introduction to that scenario. It will conclude not so much with a solution to the problem but with what is a clearer sense of its magnitude and time frame. This research can link with other work examining how to plan for and alleviate the negative effects of a declining labour force supply, both in the longer term and over the next few years.

Section 2 of the report is a description of current and historical trends in the Saskatchewan labour market. It serves as an overview of the current situation and places the third section in context.

Section 3 contains a forecast of the supply side of the labour market. The forecast is based on a population projection developed by the author and combined with forecasts for the labour force participation rates of the population. The Aboriginal population generally and the First Nation population specifically exhibits significantly different demographic and labour market trends so the forecast deals with the Registered Indian population separately from the general non-Indian population in the provir

Section 4 contains a qualitative description of impact that the declining labour supply could have and discusses some of the steps that could help postpone or alleviate the problem. While the report argues that the declining supply will be manifest as an increasing number of skill shortages in specific occupations, the analysis of which occupations and how quickly is left for follow-up work.

2.0 LABOUR MARKET TRENDS

This section describes the trends in the Saskatchewan labour market over the past ten to twenty years. The monthly Labour Force Survey (LFS) conducted by Statistics Canada is designed to collect labour market statistics and is the most reliable data source for labour market trends in the province because:

- ▶ it has a large sample size — approximately 7,000 Saskatchewan residents in 4,000 households per month;
- ▶ comparable data for other provinces are readily available;
- ▶ consistent data are generally available back to 1976; and
- ▶ the information is current, 1998 data are published in early 1999.

Unless otherwise noted, all of the data in this section are derived from the Statistics Canada CDROM "Labour Force Historical Review, 1998".

Notwithstanding the reliability of the LFS there are two drawbacks to its use for this analysis. The first is that the survey does not cover residents of Indian Reserves, an important restriction for the analysis that follows in Section 3, but representing only 3% of the population 15 and older. The LFS does survey Indian and other Aboriginal people living off-Reserve. The second difficulty arises from the fact that the LFS data are retroactively revised after every Census. The revision arising from the 1996 Census has not yet been completed so these figures may change slightly when the adjusted figures are released¹.

The analysis in this section uses only charts to show the trends in the labour market; the underlying data are contained in Appendix 1 for reference.

Definitions for the most common terms used in this section are as follows. Other terms are defined in the report as they are introduced.

Employed

A survey respondent is employed if, during the survey reference week, they did any work for pay or profit or had a job and were absent from work. Employed persons include those who were working without pay in a family farm or business. An employed person can have more than one job.

¹ In the final stages of preparing this report, Statistics Canada released final figures for 1999 and revisions to previously published labour force data. The retroactive revisions, a result of "rebasings" the Labour Force Survey to the 1996 Census, change some of the labour force figures from 1994 onward but do not affect the overall trends reported here.

Unemployed	A respondent is <u>unemployed</u> if they are 15 years of age or older and, during the reference week, were available for work and were a) on temporary layoff, b) had looked for work in the past four weeks, or c) were scheduled to start work in the next four weeks.
Labour Force	The sum of those employed or unemployed, this is the theoretical "supply" side of the labour market.
Employment rate	The number of employed persons as a percentage of the population.
Unemployment rate	The number of unemployed as a percentage of the labour force.
Participation rate	The labour force as a percentage of the population.

The term "employee" is used generically in this report to refer to both employees, those who work in paid positions for someone else, and the self-employed.

2.1 General Indicators

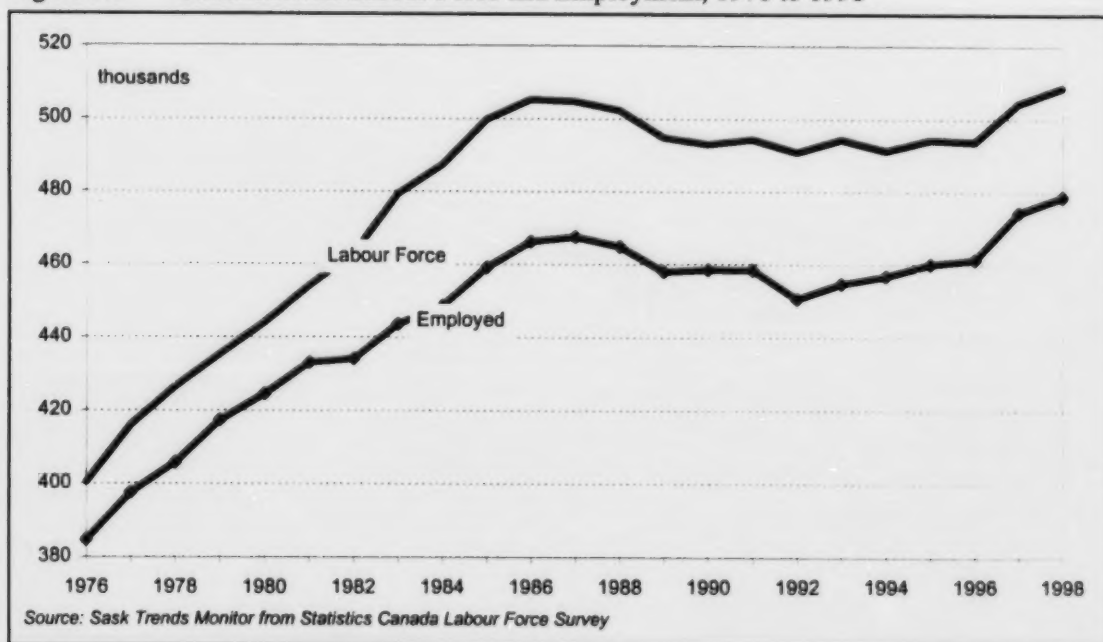
From 1976 to 1986, the Saskatchewan labour force grew significantly, from just over 400,000 to a peak of more than 500,000 in 1986 (see Figure 2.1). A period of decline and stagnation followed until the low point was reached in 1992 at 491,000 persons. Since then, there has been a relatively slow recovery; the 1986 peak was surpassed over ten years later when the labour force reached 508,600 in 1998².

The number of people employed followed the same pattern, rising to a peak of 467,500 in 1987 and then declining to a low of 450,500 in 1992 before recovering to its current level of 478,600.

The labour force was growing more quickly than employment in the early 1980s so the unemployment rate doubled from near 4% in the 1976 to 1981 period to over 8% in 1985. Since then the rate has followed a downward trend except for the 1992-93 period (see Figure 2.2).

The employment peak in 1986 also marked the point at which Saskatchewan began to deviate from the national pattern. From 1976 to 1986, the growth in the labour force was similar in Saskatchewan as in Canada as a whole. That changed in 1986 when the labour force in Saskatchewan began to fall whereas it continued to increase nationally (see Figure 2.3).

Figure 2.1 Saskatchewan Labour Force and Employment, 1976 to 1998



² Preliminary estimates for 1999 show that employment grew by 0.8% from 1998 and the labour force increased by 1.1%. The unemployment rate increased from 5.9% in 1998 to 6.1% in 1999.

There is no consensus on what caused this post-1986 stagnation but it is clear that economic factors were the main contributor.

Starting in 1986, the prices for virtually all of the goods produced in the Saskatchewan economy— oil, potash, wheat, lumber, uranium — dropped significantly. This was followed by a series of bad crops because of droughts in the late 1980s. As employment opportunities declined, the size of the labour force declined as well, adjusting itself, as it were, through the mechanism of out-migration to accommodate the economic decline.

Attempts by the provincial government to stimulate growth with deficit budgets served only to increase the provincial debt. The large public debt accumulated during this period made the subsequent recovery slower.

The way that interprovincial migration makes the provincial labour market “self-regulating” is evident in the participation and employment rates shown in Figure 2.4.

Figure 2.2 Saskatchewan Unemployment Rate, 1976 to 1998

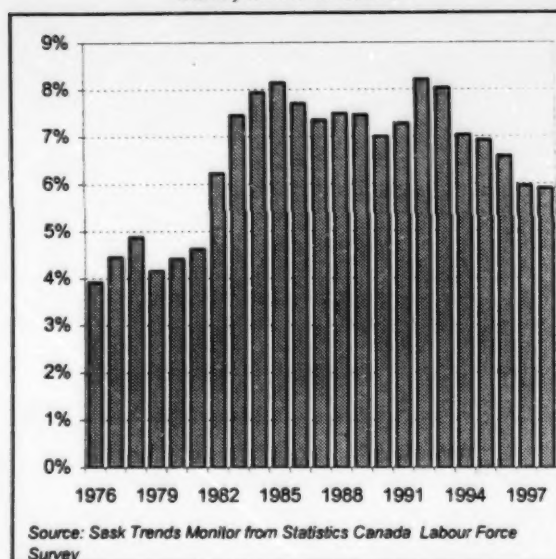


Figure 2.3 Canada and Saskatchewan Labour Force Comparison, 1976=100

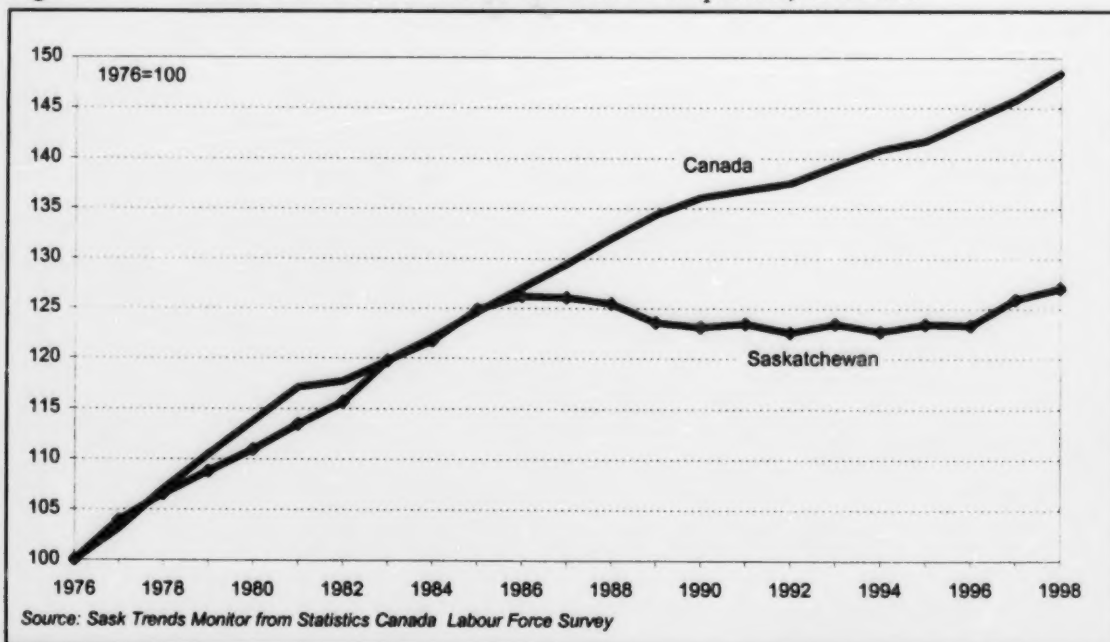


Figure 2.4 Participation and Employment Rates, Saskatchewan, 1976 to 1998

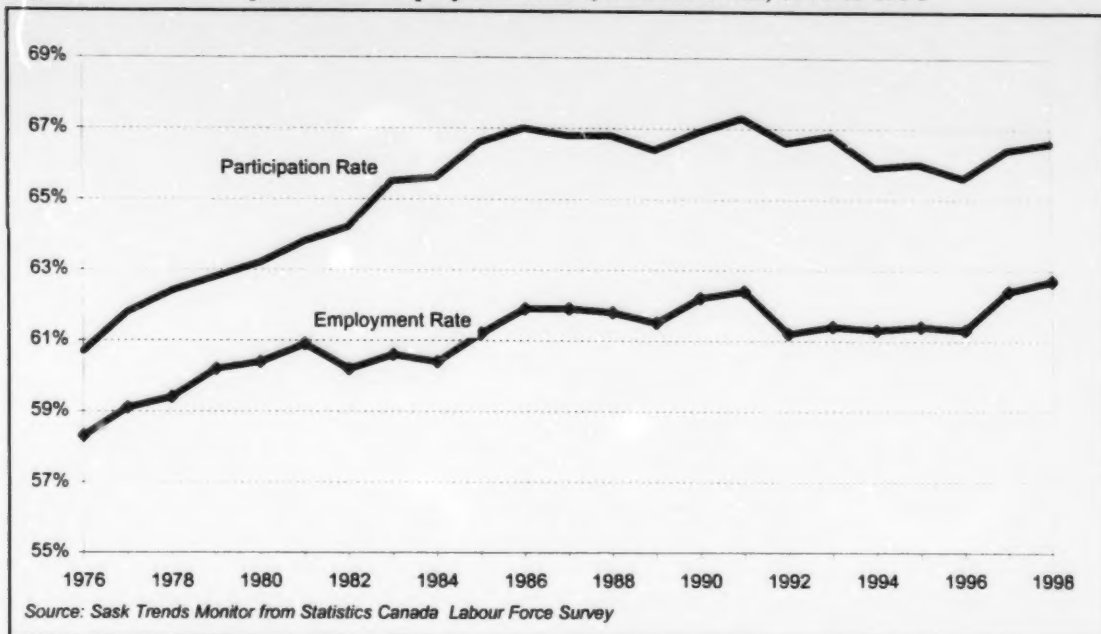
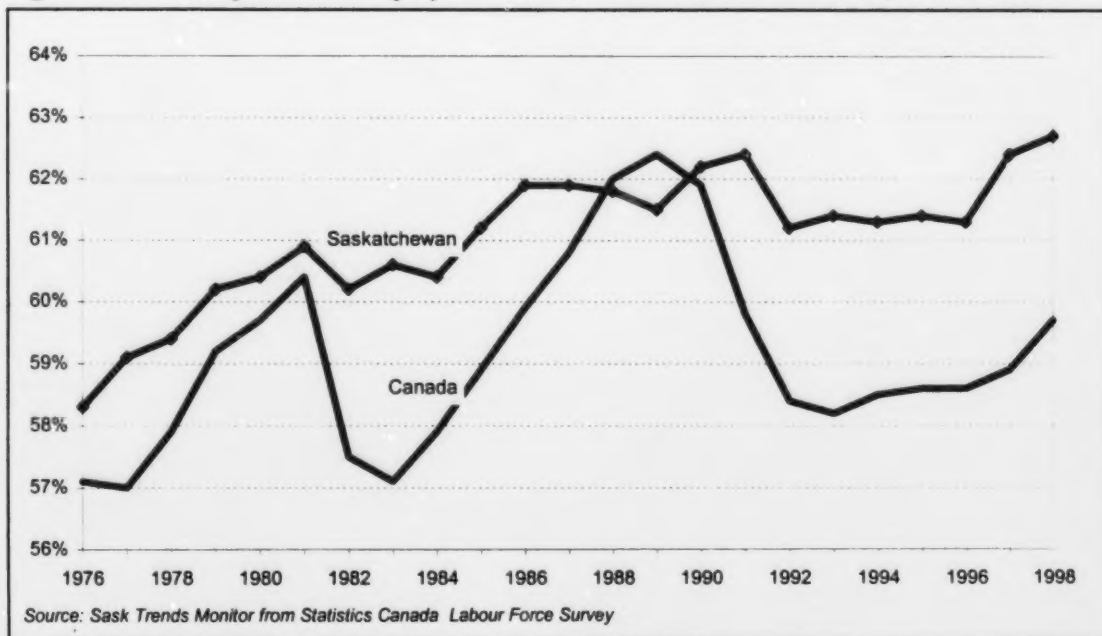


Figure 2.5 Comparison of Employment Rates, Canada and Saskatchewan, 1976 to 1998



During the period of declining employment, 1987 to 1992, the employment rate remained stable near 62% and the participation rate remained near 67%. In effect, the out-migration of persons who were unable to find work kept the proportion of persons working constant even though total employment declined. One could easily conclude that the participation rate in the province has a "natural" level of 65% to 67% and that out-migration will rise and fall in order to accommodate any changes in the demand for employment.

Saskatchewan has a relatively high and stable employment rate compared with the rate in other provinces. This is a natural consequence of a) inter-provincial migration and b) the high proportion of farmers in the province. The former stops the employment rate from falling when jobs are scarce and the latter keeps a relatively large proportion of the labour force "permanently" employed. These two characteristics of the Saskatchewan labour force are also responsible for keeping the provincial unemployment rate below the national average. Figure 2.5 shows both the stability of the Saskatchewan employment rate — Canada's rate fluctuates with the business cycle — and the fact that Saskatchewan's rate has almost always been higher than the national rate.

In the balance of this section, the employment rate (rather than either the participation rate or the unemployment rate) will be used as the general indicator of employment for specific groups in the population. The employment rate is thought to be a better indicator because it is not affected by the number of unemployed persons, an unreliable indicator of employment demand in Saskatchewan for the reasons mentioned above.

2.2 Age, Gender, Family Status

Although there has been stability in the overall size of the labour force, there have been significant changes in its demographic composition. In particular, the last two decades have shown:

- increasing employment rates among women relative to men;
- a shift from younger to older workers; and
- an increase in the number of two-earner families.

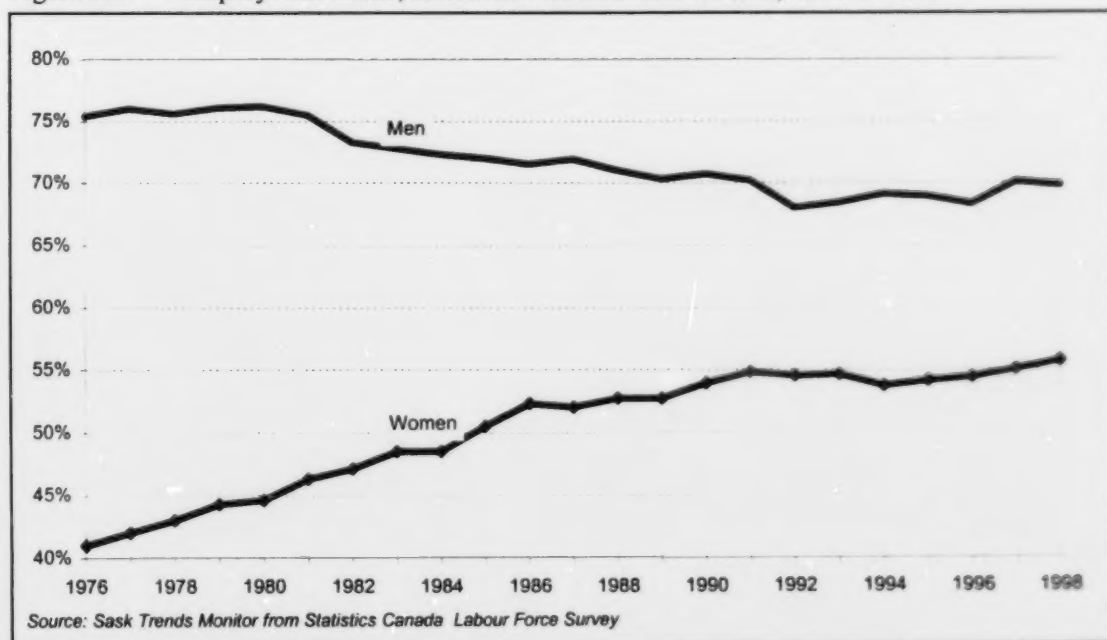
Gender

Over the past twenty two years, the number of employed men has remained effectively flat, increasing by only 0.1% per year from 250,200 in 1976 to 262,600 in 1998. Employment among women over the same period has grown by an average of 2.0% per year — from 134,300 to 216,000. In effect, nine out of ten new employees over the past twenty two years are women. Figure 2.6 shows the convergence of employment rates for men and women in the province. The difference in the employment rates has narrowed from 34% in 1976 to 14% in 1998.

There is undoubtedly still some scope for further narrowing of this difference although childbearing among women will always mean that employment rates, particularly among younger women, will always be slightly lower for women than for men.

Figure 2.7 shows that the growth in employment rates among women in Saskatchewan has

Figure 2.6 Employment Rates, Saskatchewan Men and Women, 1976 to 1998



tracked the trend in the country as a whole. In the last decade, however, employment rates in Saskatchewan have been consistently above those in the rest of Canada.

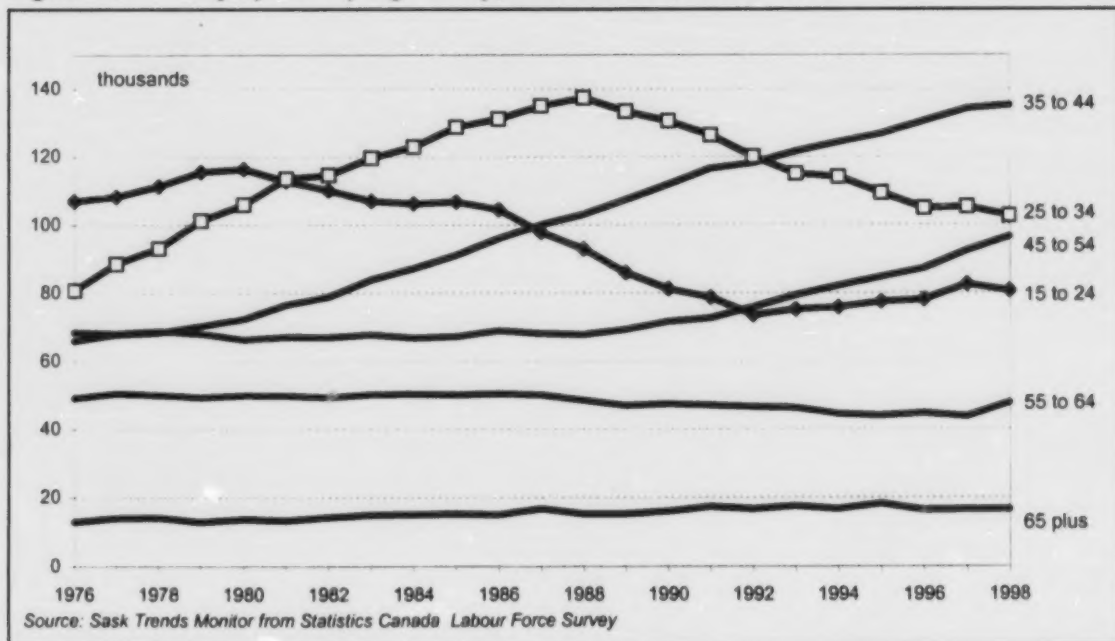
Age Group

Unlike the differences between men and women, the changes in employment by age group are a simple consequence of the natural aging of the population rather than a structural change in the labour market. Figure 2.8 shows that employment has steadily increased among those in the 35 to 44 age group and, more recently, among those in the 45 to 54 age group. Corresponding to this increase is a decline in employment among those in the 25 to 34 age group and until recently, a decline among those 15 to 24 years of age. These patterns are a consequence of the aging of the "baby boom" generation which, in 1976 was predominantly in the 15 to 24 age group and is now solidly in the 35 to 54 age group.

Figure 2.7 Employment Rates Among Women, Canada and Saskatchewan, 1976 to 1998



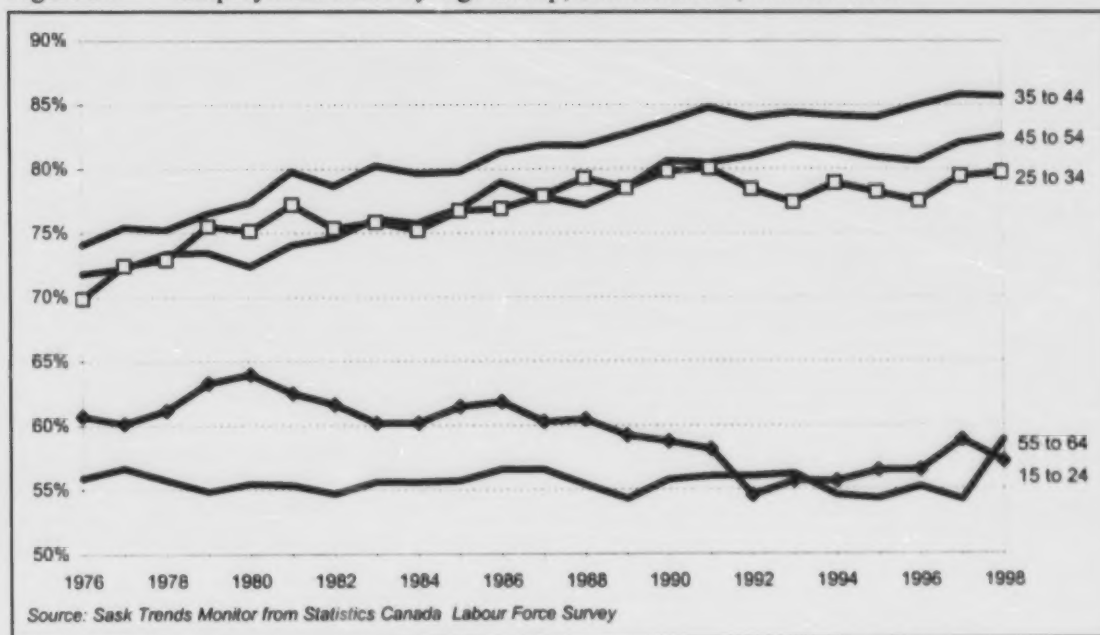
Figure 2.8 Employment by Age Group, Saskatchewan, 1976 to 1998



The number of persons in the 55 and older age group who are employed has been relatively constant over the period.

By examining employment rates for these age groups, one can verify that most of the change in employment has a natural demographic cause (see Figure 2.9). Over the twenty two years, the employment rates for those 25 to 54 have grown slowly but steadily while the rates for those 15 to 24 have declined and the rates for those 55 to 64 have been constant. (The employment rate for those 65 and older, not shown in the chart, is also constant and low.) The phenomenon of “early” retirement has taken place over this period, so one would have expected a decline in the participation rates among those in the 55 to 64 age group. The fact that no such decline has occurred suggests that either early retirees stay in the labour force after they leave their jobs or that the phenomenon is simply not all that common in the province.

Figure 2.9 Employment Rates by Age Group, Saskatchewan, 1976 to 1998

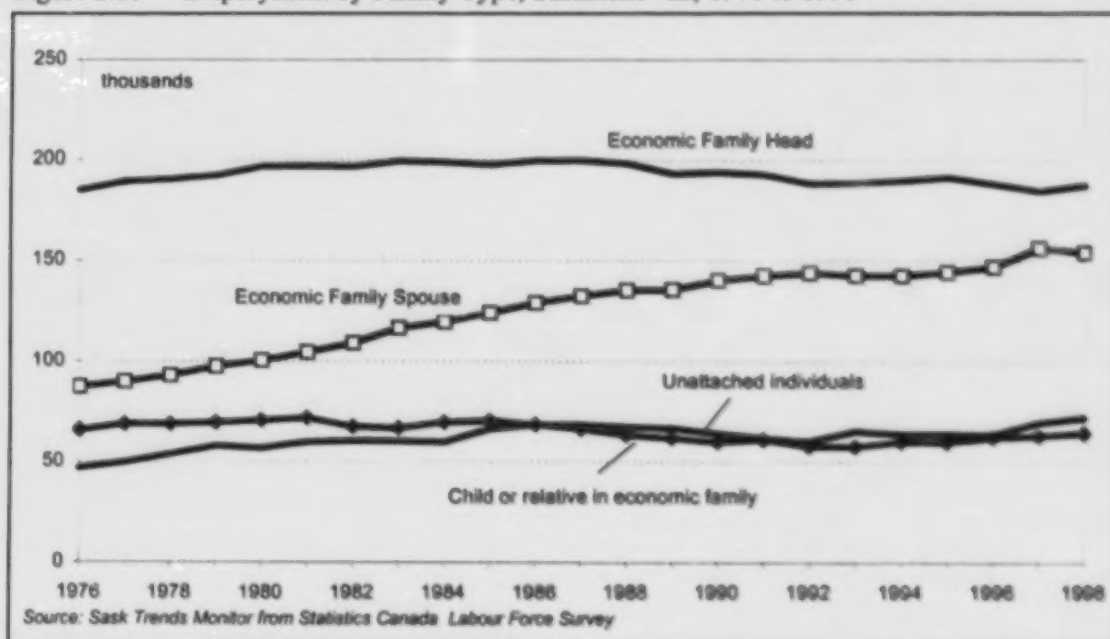


Family Type

To a large extent, the statistics on employment by family type are another reflection of increasing employment among women. Employment by the head of an economic family³ has been effectively constant from 1976 to 1992, increasing slightly over the first ten years and then declining slowly. Employment among the spouses in these economic families has increased markedly, however, from 87,100 in 1976 to 154,200 in 1998. Employment among other persons in the economic family, typically an older child, has also been constant as has employment among unattached individuals — those not living in an economic family situation.

In the last two years, the differential in the employment rates for heads and spouses in economic families has narrowed to zero — both employment rates are now 68% to 69% compared with 79% for family heads and 41% for spouses in 1976.

Figure 2.10 Employment by Family Type, Saskatchewan, 1976 to 1998



³

An economic family is a group of individuals related by blood or marriage who tend to act as an economic unit. Economic families can include multi-generational families and "blended" families as well as traditional husband-wife and lone parent families. The "head" of an economic family is defined as the male in a husband-wife family or if no male is present, the female in a lone-parent family.

2.3 Industry, Occupation, and Type of Job

In this section we report on the shifts in employment that are largely a consequence of changes in the economy:

- increasing employment in the service-producing sector and a corresponding decline in the goods-producing sector;
- increasing employment among managers and professionals; and
- a slow but steady increase in the relatively few persons who are self-employed.

Only data for the past eleven years is included in this section because industry/occupation specific data prior to 1987 are not compatible with current definitions.

Employment by Industry

There are a number of ways to disaggregate employment according to industry categories. One of the simplest ways is to break down the economy into the goods-producing sector — agriculture, forestry, mining, oil/gas, construction, utilities, manufacturing — and the services-producing sector (all others). With this breakdown, Figure 2.11 shows the steady shift away from employment in the goods-producing sector and into the services-producing sector.

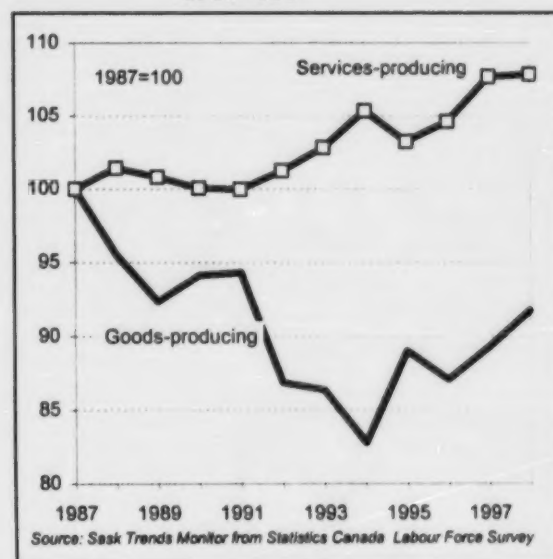
In 1987, 33% of employment was in the goods-producing sector and 67% was in the services-producing sector. By 1998, the ratio was 30% in the goods-producing sector and 70% in the services-producing sector.

Figures 2.12 and 2.13 show, respectively, more detail about employment growth within the goods-producing and services-producing sectors.

Within the goods-producing sector, three of the industry groups have registered declines over the ten years from 1988 to 1998. Of these, agriculture is the most important — losing almost 10,000 jobs over the ten year period. The decline in Saskatchewan is more pronounced than in other provinces because grain farms rather than livestock farms are dominant in the province and grain farming has consolidated more rapidly than livestock farming in the past decade.

Employment in two industry groups — mining/forestry/oil and gas and

Figure 2.11 Employment by Sector, Saskatchewan, 1987 to 1998, 1987=100



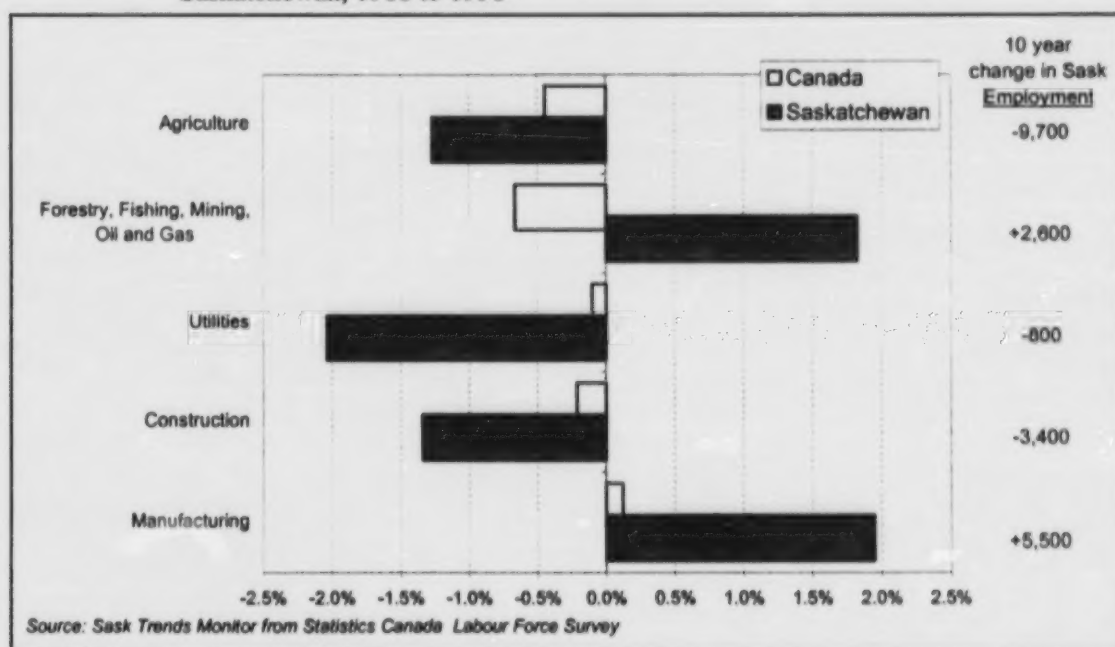
manufacturing — showed increases over the ten years. In both cases, the increase is counter to the national trend. For the mining/forestry/oil and gas sector, Saskatchewan has been prosperous because our mining industry is concentrated in commodities still in demand — potash, uranium, coal — rather than the hard rock and coal mines in other parts of Canada. And our forestry sector is concentrated in softwood, an emerging rather than declining commodity.

The growth pattern in the manufacturing sector relative to the Canadian average is more complex. Saskatchewan has expanded its manufacturing sector significantly in the past decade, adding new pulp/paper mills, a major fertilizer plant, and two oil refineries as well as expanding its production of food, electronic, and machinery products. The total value of goods shipped from Saskatchewan manufacturers increased by 75% from 1988 to 1998.

Manufacturing in Canada has grown as well but the free trade agreements have led to growth in subsectors that are capital intensive rather than labour intensive. Consequently employment has not grown as quickly as in Saskatchewan.

Saskatchewan has followed the national pattern of declines in construction and utilities although the rate of decline is more pronounced here. Both of these declines may be attributable to the stagnant population in the province; population growth is a major driving force for the utility and construction sectors. Government restraint, more pronounced in Saskatchewan during the early 1990s than in other provinces, will also have had an effect because a significant portion of construction work (e.g. highways, institutional facilities) is funded by the public sector.

Figure 2.12 Average Annual Increase in Employment, Goods Producing Sector, Canada and Saskatchewan, 1988 to 1998



Within the services-producing sector, all but three industry groups registered increases over the ten years (see Figure 2.13). The three industry groups showing declines were retail trade (down an average of 1.1% per year), "other" services (down 0.8%), and public administration (down 0.6%). Those showing the largest increases were the "professional, scientific, and technical services" group with an average annual employment increase of 5.4%, and the "management, administrative, and other support" group with an average annual employment increase of 3.8%. The former group includes computer and other consulting firms. The second group includes businesses that are holding companies for other corporations.

Compared to national trends, Saskatchewan showed similar patterns of high and low growth but there were exceptions.

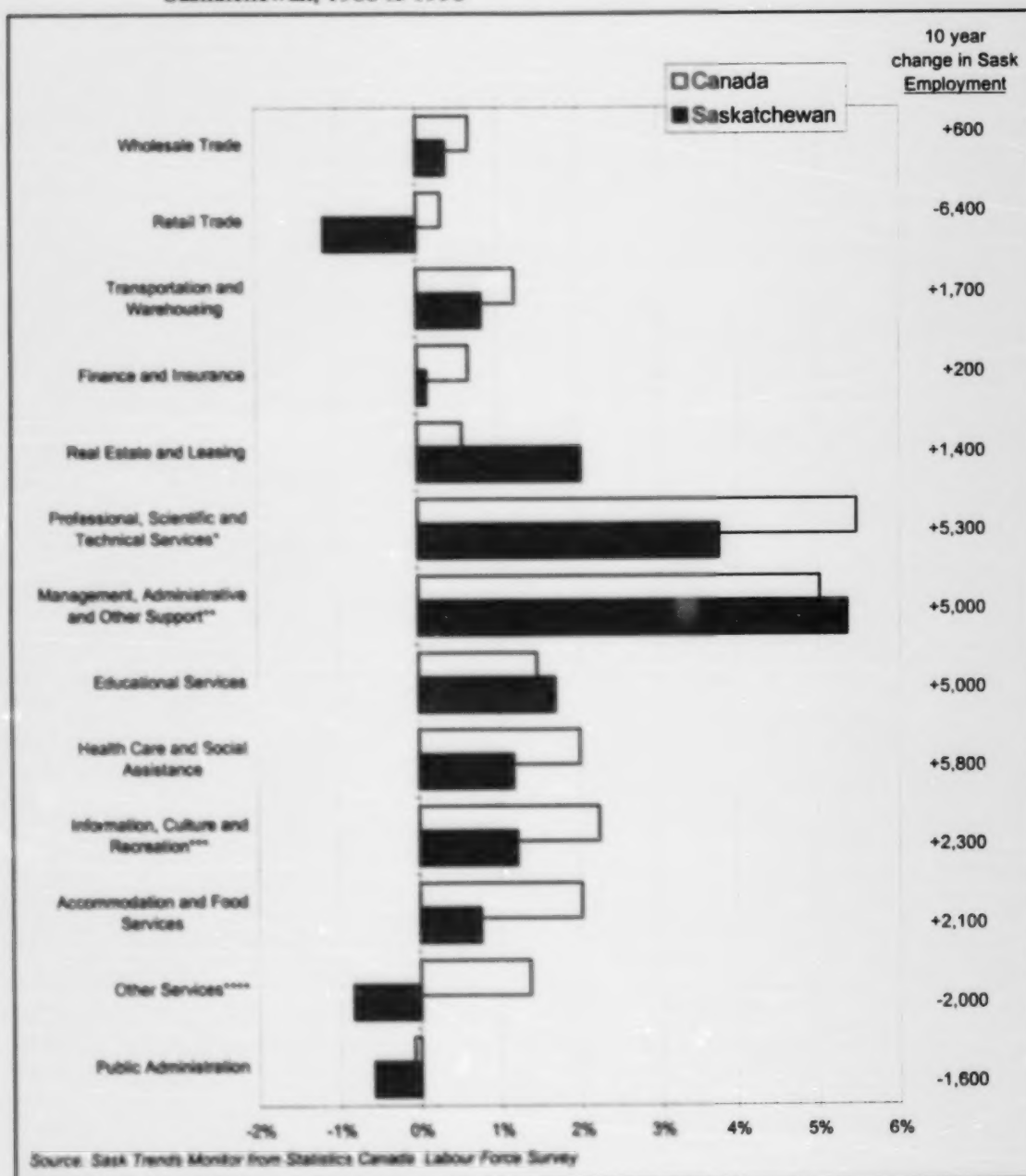
Employment in "other" services⁴ and retail trade increased in Canada whereas it declined in Saskatchewan. Both of these service groups tend to be driven by increases in population so Saskatchewan's relatively slow population growth will have dampening effect on demand and employment. Employment in finance/insurance and accommodation/food services also grew noticeably more slowly in Saskatchewan than in Canada, probably for the same reason.

In real estate/leasing, the Saskatchewan growth rate was well above the national average. This may be a consequence of the large number of part-time real estate agents working in the province.

The final observation that can be made about the data in Figure 2.13 is that one of the industry groups where Saskatchewan lags behind the national growth rate requires a high proportion of so-called knowledge workers. The "professional, scientific, and technical services" group includes the subgroups a) legal services, b) accounting and tax preparation, c) architectural, engineering and design services, and d) computer system design services.

⁴ "Other" services include, in decreasing order of size, a) repair and maintenance services, b) personal and laundry services, c) professional, religious, union, and other organizations, and d) services to private households.

Figure 2.13 Average Annual Increase in Employment, Services Producing Sector, Canada and Saskatchewan, 1988 to 1998



* Includes legal, architectural/engineering, accounting services; advertising agencies, and computer services

** Includes building and security services, holding companies, employment services, waste management services

*** Includes publishing, motion picture, radio/television, information services processing, amusement and gambling

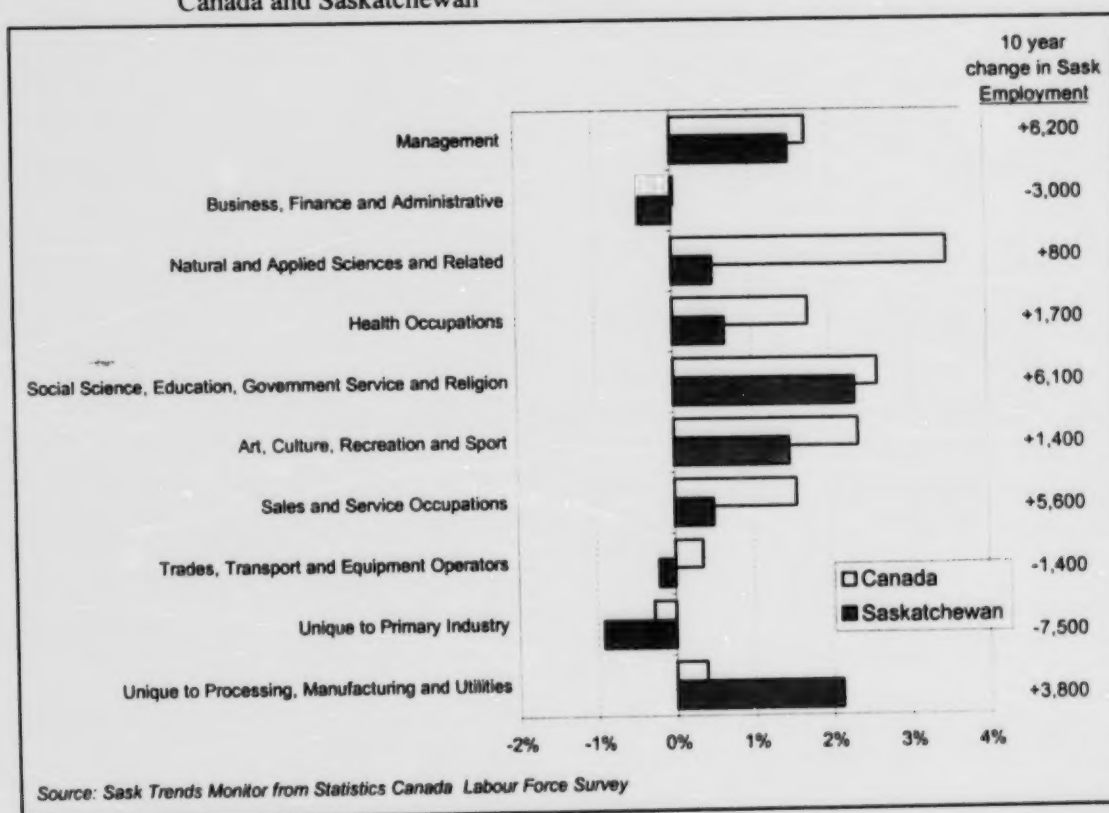
**** Includes personal services, laundry, repair and maintenance services, religious and professional organizations

Employment by Occupation

There have also been changes in the occupations in which people work, some related to the changes in industry and some related to more structural changes in the labour market (see Figure 2.14). A decline in the number of people working in occupations "unique to the primary industry", for example, is related to the decline in the primary (goods-producing) sector and is largely a result of a decline in the number of farmers. The decline in the "business, finance, and administrative" group, however, is probably a consequence of the introduction of computer technology because this group includes secretarial and other clerical occupations.

The decline in the "trades, transport, and equipment operators" category was not evident in Canada and is a consequence of the slowdown in construction activity that occurred from 1988 to 1998. In many other occupation groups, the Saskatchewan experience was similar to the Canadian one. There have been steady increases, for example, in the number of managers and in the "social science, education, government, and religion" and "art, culture, recreation, and sport" groups although in each of these three cases, the rate of increase in Saskatchewan has been somewhat slower than in Canada.

Figure 2.14 Employment by Occupation Group, Average Annual Increase from 1988 to 1998, Canada and Saskatchewan



In three groups, the rate of growth in Saskatchewan was much lower than in Canada:

- ▶ health occupations — growth in Saskatchewan was 0.7% per year compared with 1.7% in Canada;
- ▶ sales and service — growth in Saskatchewan was 0.5% compared with 1.6% in Canada — and this is a particularly important group, accounting for one in four Saskatchewan jobs; and
- ▶ natural and applied science — growth in Saskatchewan was 0.5% compared with 3.5% in Canada.

In only one case was the growth rate in Saskatchewan higher than in Canada — occupations unique to processing, machining, and utilities. This occupation group is growing because of the substantial growth in manufacturing employment that occurred over the ten years.

Type of Occupation

The Labour Force Survey breaks down employment into three main categories:

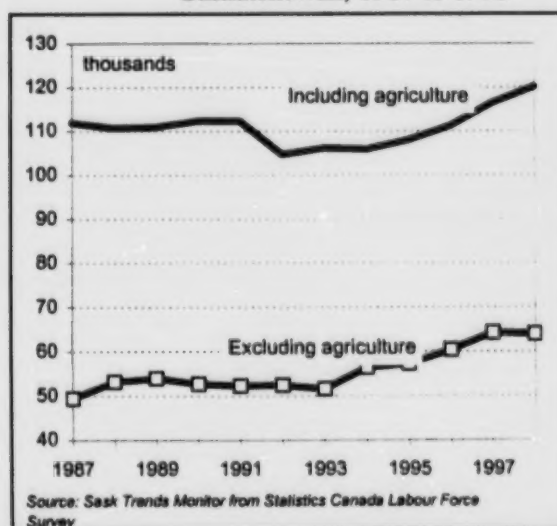
- ▶ employees — persons who work for someone else, sometimes called paid workers;
- ▶ self-employed — these are working owners of businesses or farms with or without paid help who may or may not be incorporated; and
- ▶ unpaid family workers — persons who work without pay in a family business or farm.

These definitions are subject to some interpretation because owner-operators of single person businesses may consider themselves as “employees” if the business is incorporated and they pay themselves a salary.

Saskatchewan has a large proportion of self-employed workers because of the number of farmers in the province. In 1998, 25% of employed persons were self-employed but the proportion drops to 16%, the same proportion as in Canada, if the agriculture industry group is excluded. The majority of self-employed persons (66% including agriculture, 55% excluding agriculture) are on their own — unincorporated businesses with no paid help.

In spite of the overall decline in the number of farms in the province, the number of self-employed individuals continues to increase because of the increase in non-agricultural self employment and because self-employment in agriculture has declined only

Figure 2.15 Self Employment in Saskatchewan, 1987 to 1998

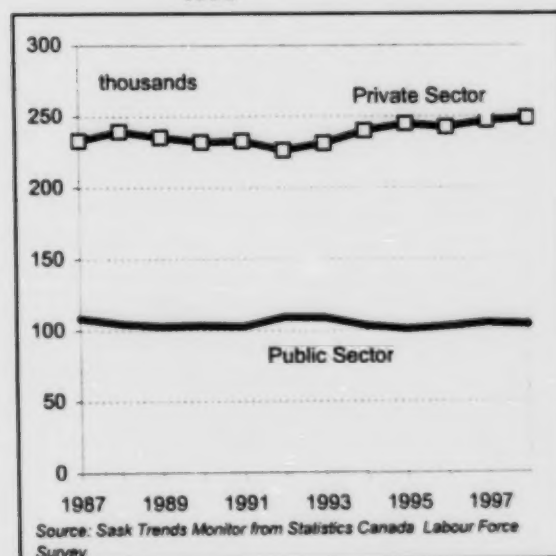


slowly⁵. From 1992 to 1998, the number of self-employed grew by 15,400 from 104,700 to 120,100. Most of that increase is accounted for by the growth of 11,500 in non-agricultural self-employment.

The number of unpaid family workers has been declining steadily in the province; by 1998 only 6,300 persons reported working in this capacity, almost all of them in agriculture.

Statistics Canada further disaggregates the number of employees into public⁶ and private sector workers. Figure 2.16 shows that with the exception of a slight increase in 1992, public sector employment has been effectively flat for the past twelve years and that all of the variation in employment has occurred in the private sector.

Figure 2.16 Employees by Public and Private Sector, Saskatchewan, 1987 to 1998



⁵ The other factor that keeps agricultural self-employment higher than expected is an artifact of the LFS survey. Over the past ten years, farm women have increasingly come to view themselves as "farmers" rather than as homemakers. Some of the increase in farm self-employment, and the decline in unpaid family labour, may be a consequence of more LFS survey respondents recording their labour force status as employed rather than as "out of the labour force".

⁶ This is a broad view of the public sector that includes government proper, health and education services, the crown corporations, and employment in any business substantially funded by government.

2.4 Hours of Work

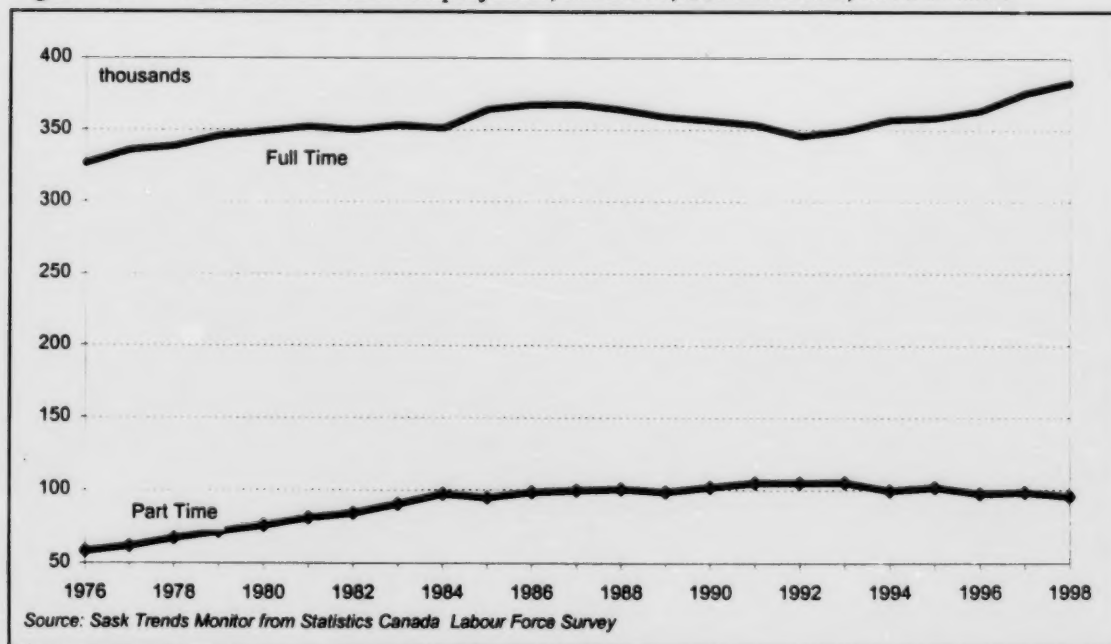
In this section, the hours of work for employees are described. In particular, the number of part-time workers — defined by Statistics Canada to be those normally working 30 hours per week or less at their main job — are analyzed. This leads naturally into a discussion of the reasons for part-time work and to the phenomenon of multiple-job-holding.

Full and Part Time Employment

In the past twenty two years, the number of full-time and part-time workers has remained remarkably balanced although there have been some periodic shifts (see Figure 2.17). Over the first part of the period, part-time employment increased more rapidly than full-time employment. The percentage of employment that was part-time increased from 15% in 1976 to 23% by 1993. Since then there has been an increase in full-time employment and a decline in part-time employment to the extent that part-time employment now accounts for 20% of employment, the same proportion as in 1983.

Relative to other provinces, a large proportion of Saskatchewan's workers are in part-time employment. Figure 2.18 shows that, although the rates are converging, the proportion of employment that is part-time is higher than in Canada as a whole.

Figure 2.17 Full and Part Time Employment, Main Job, Saskatchewan, 1976 to 1998



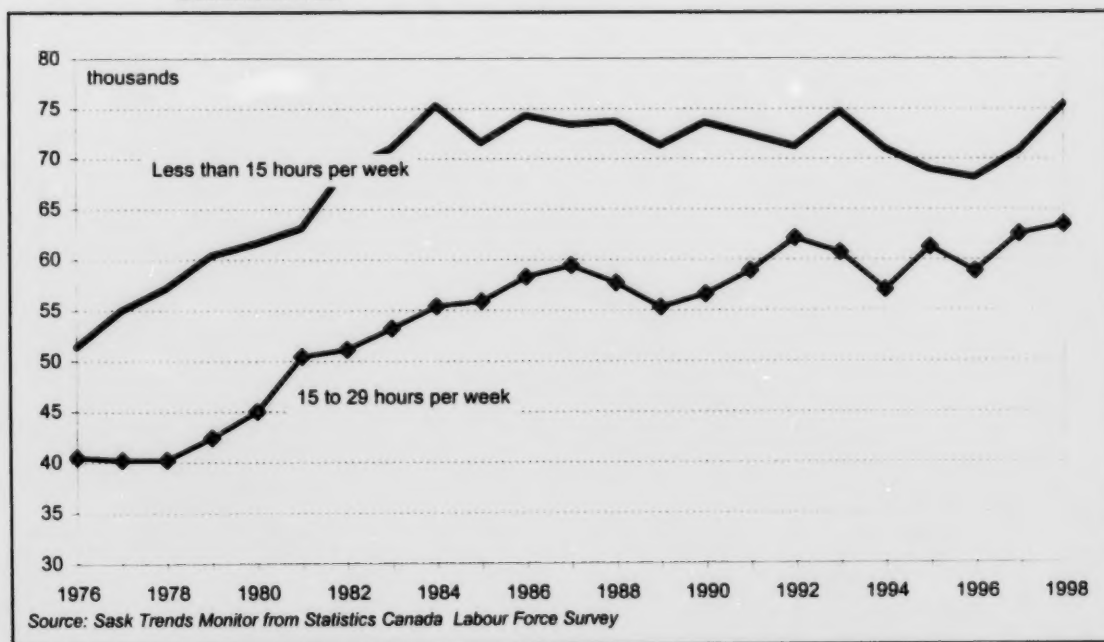
The “degree” of part-time work can also be measured by showing the actual (rather than the normal) hours per week. Figure 2.19 shows that the number of persons working under 15 hours per week at all jobs has stabilized at 70,000 to 75,000. The number of persons working 15 to 29 hours per week has continued to increase to the extent that this group now constitutes almost one half (46%) of those working part-time hours.

As part of the Labour Force Survey interview, respondents are asked the reason for working part time. Figure 2.20 shows that in 1998, about one in four part-time workers (25%) is doing so because they couldn’t find full-time work — so-called “involuntary” part-time work. That proportion has gradually increased over the years although a change in survey methodology produced an abrupt drop in 1996.

Figure 2.18 Part Time Employment as a Percentage of Total Employment, Canada and Saskatchewan, 1976 to 1998



Figure 2.19 Actual Hours per Week (at all jobs) for Part Time Employees, 1976 to 1998, Saskatchewan



Other reasons for part time employment in 1998 were:

- ▶ do not want full-time work (29% of the total);
- ▶ going to school (24%);
- ▶ personal or family responsibilities (18%); and
- ▶ other reasons (4%).

At the other end of the hours-of-work scale, there are an increasing proportion of persons who work more than 40 hours per week. Figure 2.21 shows a general upward trend in the number of such persons from 117,100 in 1976 to 143,000 in 1998. The proportion of such persons is near 30%, relatively unchanged throughout the 1990s and similar to the proportion in the late 1970s before shorter work weeks became common.

Figure 2.20 Involuntary Part Time Employment as Percentage of All Part Time Employment, Saskatchewan, 1976 to 1998

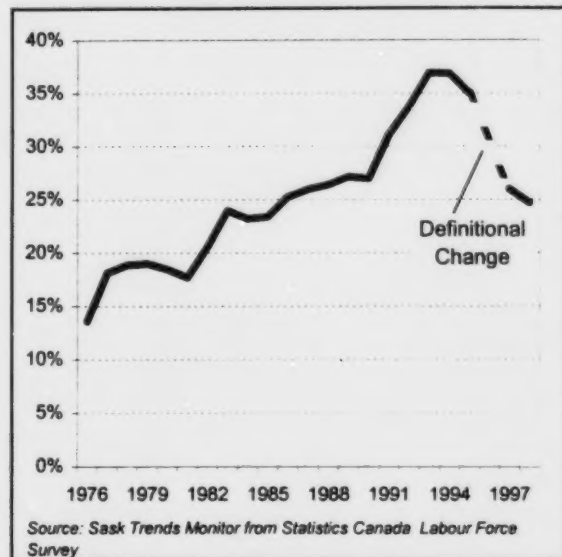


Figure 2.21 Persons Employed More than 40 Hours per Week (at all jobs), Saskatchewan, 1976 to 1998

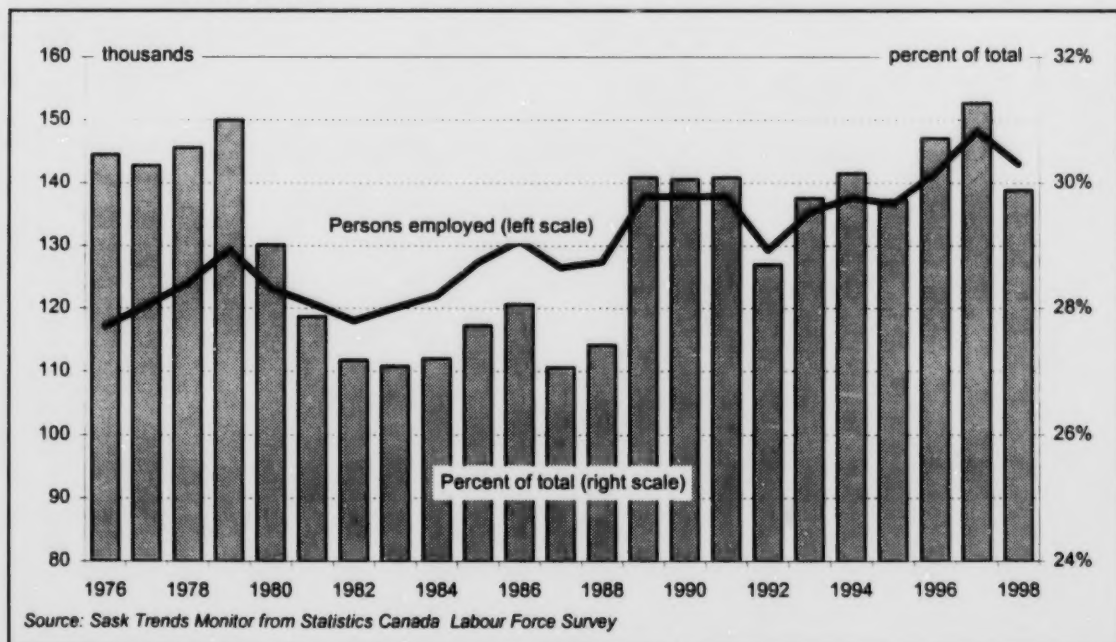
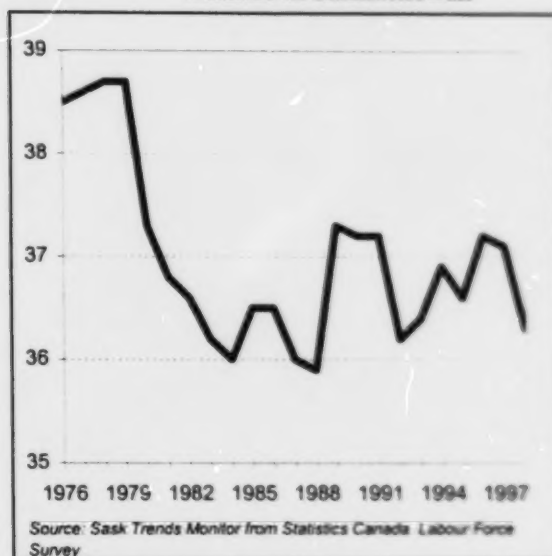


Figure 2.22 shows the net effect of these changes:

- ▶ the increase in the number of hours worked by part-time staff,
- ▶ more full-time employees working fewer than 40 hours per week; and
- ▶ more full-time employees working more than 40 hours per week.

In effect, these changes have cancelled each other out and, except for a period of decline in the late 1970s, the average hours worked per week (at all jobs) has been relatively constant near 36½ for the past fifteen years.

Figure 2.22 Average Hours of Work per Week, Full and Part Time Workers in Saskatchewan



Multiple Job Holders

The previous statistics on hours of work included work at all jobs and in Saskatchewan this matters because the province has a substantial number of multiple job holders — persons who simultaneously hold more than one job. Although the number fluctuates, there have been more than 40,000 such multiple job holders over the past ten years (see Figure 2.23).

The proportion is higher than in Canada, almost double in fact. Figure 2.24 shows that the proportion of persons working at more than one jobs is near 9% in Saskatchewan compared with approximately 5% in Canada.

Relatively little is known about these multiple job holders because Statistics Canada collects most of the employment information about only the “main” job. We do know, however, that:

- ▶ only 30% of multiple job holders are combining part-time jobs;
- ▶ almost one half (48%) work 40 hours per week or more at their main job;
- ▶ the average multiple job holder added 14 hours per week because of the second job; and
- ▶ the most common industry for the main job was agriculture (17% of multiple job holders) followed by trade (13%) and health care (13%).

We don't know how many of the multiple job holders have agriculture as their second job but it is safe to assume that a large number of multiple job holders are farmers with off-farm employment. This doesn't seem to be sufficient, however, to explain the much higher proportion of multiple job holders in Saskatchewan compared with Canada.

Figure 2.23 Number of Multiple Job Holders, Saskatchewan, 1987 to 1998

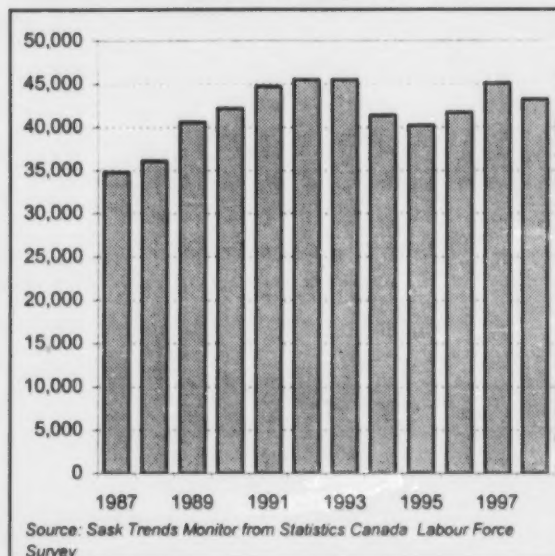


Figure 2.24 Multiple Job Holders as a Percentage of Total Employment, Canada and Saskatchewan



By factoring out multiple job holders, one can arrive at the total number of "jobs" in the provincial labour market. (This calculation assumes that multiple job holders have two jobs.) Figure 2.25 shows total employment in the province compared with the total number of jobs. The number of jobs remained effectively constant near 500,000 in the late 1980s and early 1990s even though employment fluctuated. In effect, the drop in employment during the 1987 to 1992 period was not a consequence of fewer jobs but rather a constant number of jobs being done by fewer persons, reflecting the increase in multiple job holding over the period.

In contrast, employment increased in 1997 because the number of jobs actually increased.

Figure 2.25 Number of "Jobs" Compared with Overall Employment, Saskatchewan, 1987 to 1998



2.5 Job Tenure and Status

The Labour Force Survey measures both job tenure — the period over which the employee is with the same employer (including self-employment) regardless of job changes — and job type — whether the position is permanent or temporary. The second measure is only available for 1997 and 1998.

Job Tenure

In spite of a belief that job changes are becoming more frequent, the average tenure in the Saskatchewan labour market has risen rather than fallen over the past two decades (see Figure 2.26). From an average of 9.3 years in 1978, average tenure increased to 10.1 years in 1998. Tenure is lower in Canada, probably because Saskatchewan has a high proportion of farmers with relatively long tenures.

Figure 2.27 shows that the increase in average job tenure during the 1980s was a result of more employees in the 5 to 20 year category. More recently the number of employees with more than 20 years working for the same employer has increased. Throughout the period, the number of people who have worked either less than one year or 1 to 5 years has been relatively constant.

Figure 2.26 Average Job Tenure, Canada and Saskatchewan, 1976 to 1998

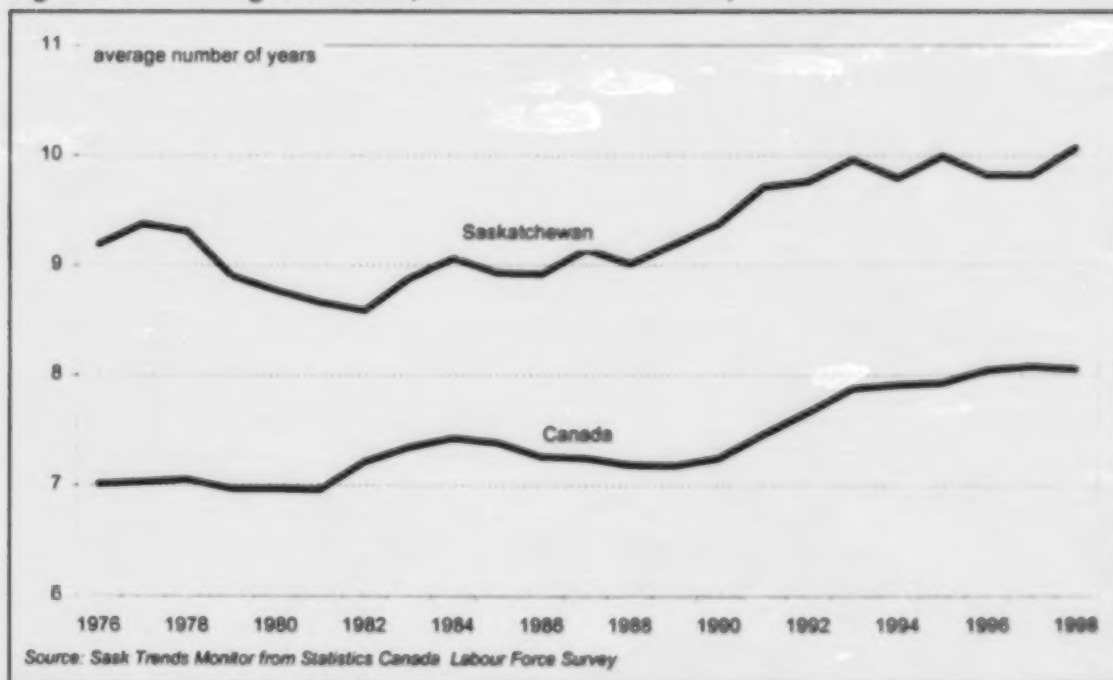
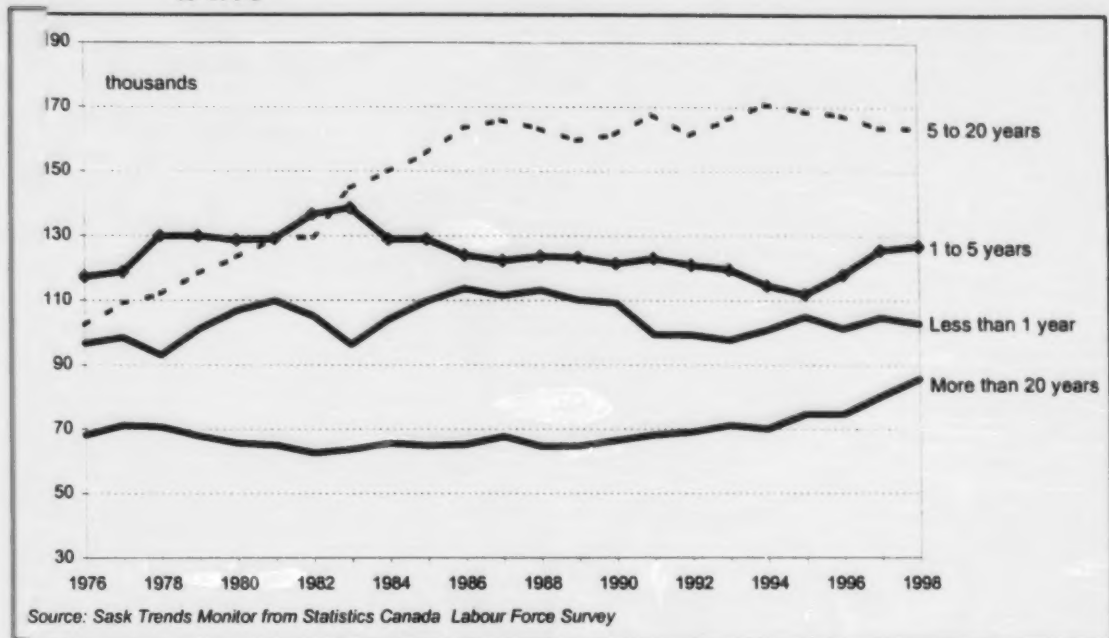


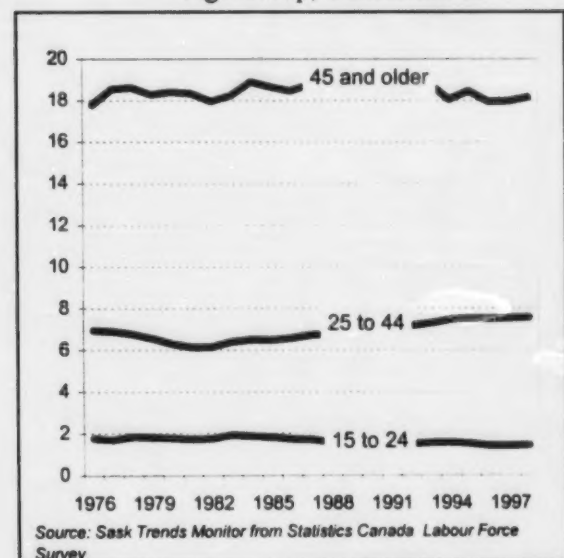
Figure 2.27 Employment by Job Tenure (years with the same employer), Saskatchewan, 1976 to 1998



The figures can be examined by age group to adjust for the fact that tenure will naturally increase with an aging work force. Figure 2.28 shows that average tenure has been constant for each of the age groups although there is a slight upward trend in the 25 to 44 age group.

In other words, there is no evidence of an increase in the number of people who change employers. At the same time, however, the increase in average tenure is a consequence of the natural aging of the provincial labour force rather than a tendency to stay with one employer longer.

Figure 2.28 Average Tenure (in years) by Age Group, Saskatchewan

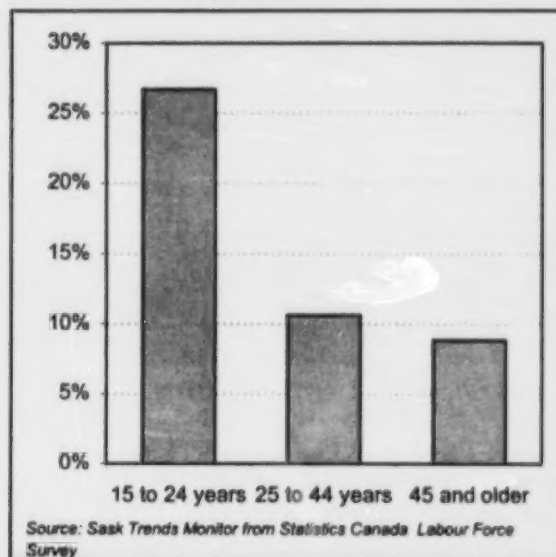


Job Type

In 1998, 87% of Saskatchewan employees were in permanent positions and 13% were in temporary positions. This ratio is similar to the Canadian average of 88% and 12% respectively.

Figure 2.29 shows that, as a proportion of total employment, temporary positions are more common among those in the 15 to 24 age group (27%) than for those 25 to 44 (11%) or 45 and older (9%). The number of temporary positions increased by 9.5% from 1997 to 1998 whereas the number of permanent positions fell by 1.1%. (No long term data are published by Statistics Canada.)

Figure 2.29 Temporary Employment as a Percentage of All Employment, by Age Group, Saskatchewan, 1998



2.6 Educational Attainment

The linkage between employment and educational attainment is a strong one. Those with higher levels of completed education are much more likely to be employed than those with lower levels. This relationship holds at each age group and for both genders. Because education is seen by many as the key to economic growth, this section examines the linkage in some detail. A 1990 change in way the Labour Force Survey measures educational attainment makes the time frame for the analysis shorter than we would have preferred⁷.

Figure 2.30 shows employment by level of completed education. Notwithstanding the definitional change that occurred in 1990, some trends are obvious:

- ▶ employment among those with less than Grade 9 education has declined steadily over the twenty two years;
- ▶ employment among those with at least some high school education (including graduation) increased until the mid 1980s but has been declining steadily since then;
- ▶ employment among those with incomplete post-secondary education (which could be either in progress or more permanent) has been steady over the twenty two years;
- ▶ there is a steady increase in employment among those with a (university or non-university) post-secondary certificate or diploma; and
- ▶ there is also a steady increase, albeit slower, in employment among those who have a university degree.

The same pattern is evident in Canada as Figure 2.31 shows.

⁷

From 1975 to 1989, data on K-12 education reflected the number of years of primary and secondary education completed. In the case of those whose highest level was grades 11 through 13, no attempt was made to determine if the respondent had actually graduated. However, post-secondary education was limited to the education which normally requires high school graduation. Beginning January 1990, data on K-12 education reflects the highest grade completed. With the new questions, any education that could be counted towards a degree, certificate or diploma from an educational institution is taken as post-secondary education. The change allows more persons into the post-secondary education category. For example, trades programs offered through apprenticeship, vocational schools or private trade schools do not always require high school graduation. Such education is now considered as post-secondary.

Figure 2.30 Employment by Level of Completed Education, Saskatchewan, 1976 to 1998

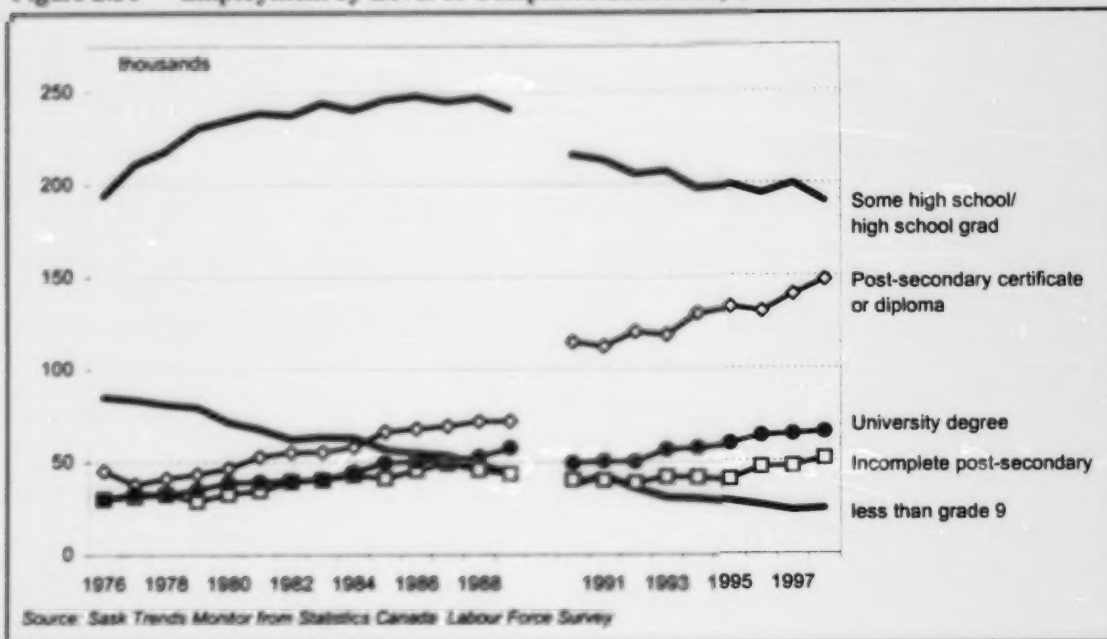


Figure 2.31 Average Annual Increase in Employment, by Completed Education Level, 1990 to 1998, Canada and Saskatchewan

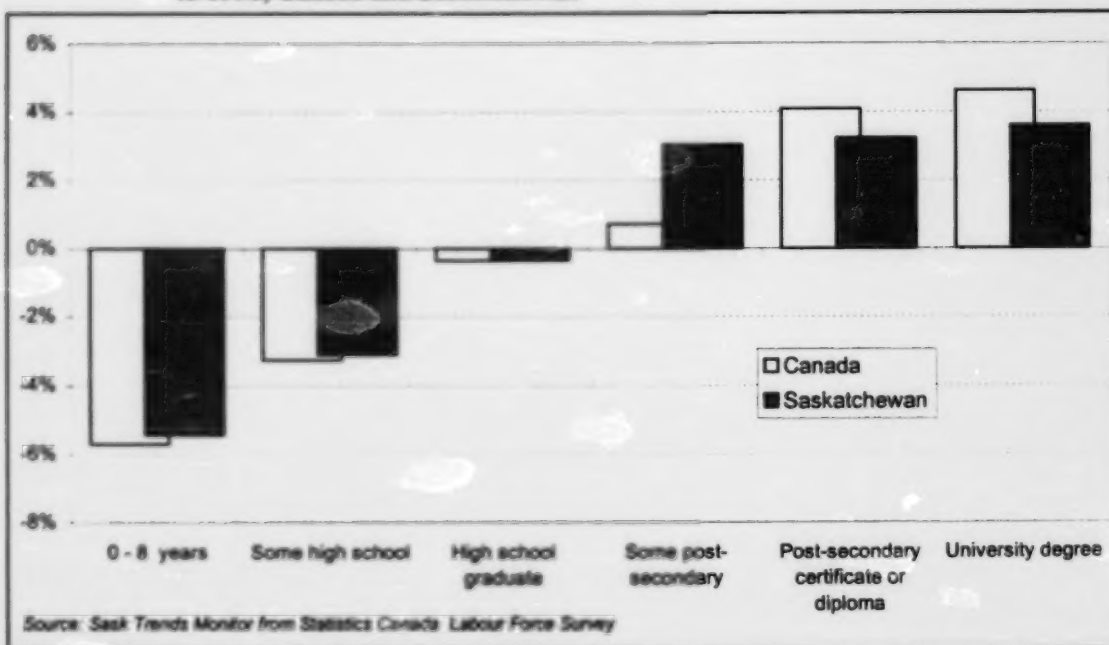
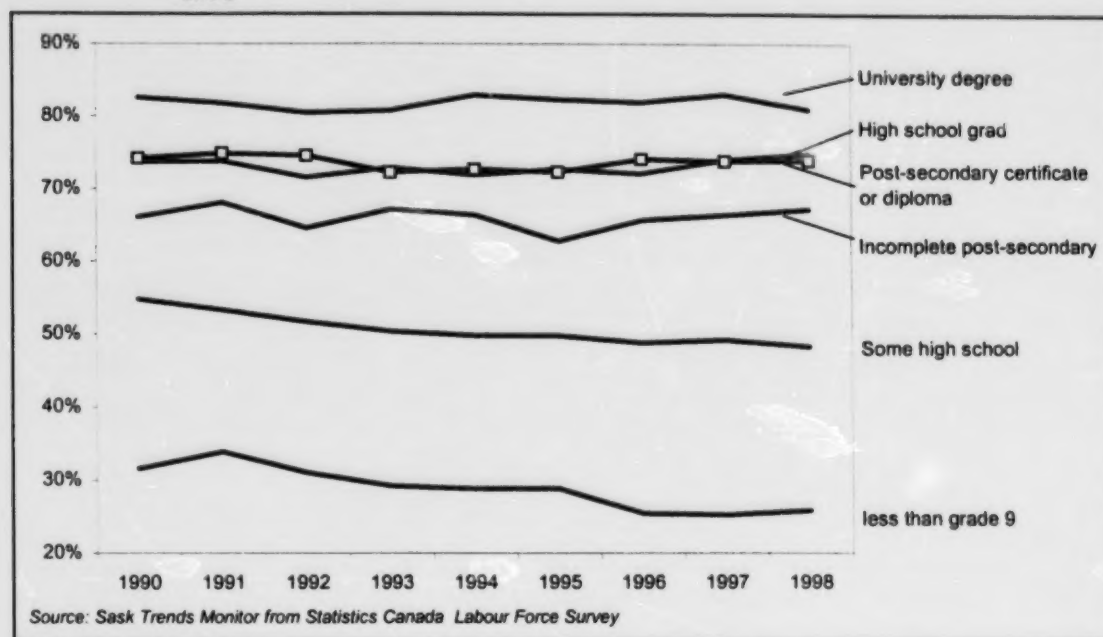


Figure 2.32 Employment Rates by Level of Completed Education, Saskatchewan, 1990 to 1998



The underlying relationship between education and employment is masked by the general increase in the level of completed education in the general population and by the aging of the population. So Figure 2.32 looks at employment rates by completed education levels. The period of 1990 to 1998 is chosen to avoid complications arising from the change in the definition of educational attainment.

With one exception, there is a clear progression of employment rates with the lowest employment rate (26% in 1998) among those with less than Grade 9 up to 81% for those with a university degree. The one exception is for high school graduates who have an equivalent employment rate (75%) as those with a post-secondary certificate/diploma. Figure 2.32 also shows, even in the relatively short time frame of nine years, a decline in employment rates among those with less than high school graduation.

These employment rates can be examined by age as well as completed education to remove the effect of lower formal levels of completed education among those in older age groups. Figure 2.33 shows the relationship between employment rates, age group, gender, and education. Some patterns are consistent across all three age groups and both genders.

- ▶ There is a general increase in employment rates as educational attainment increases with the lowest rate for those with less than Grade 9 and the highest rate for those with university degrees.

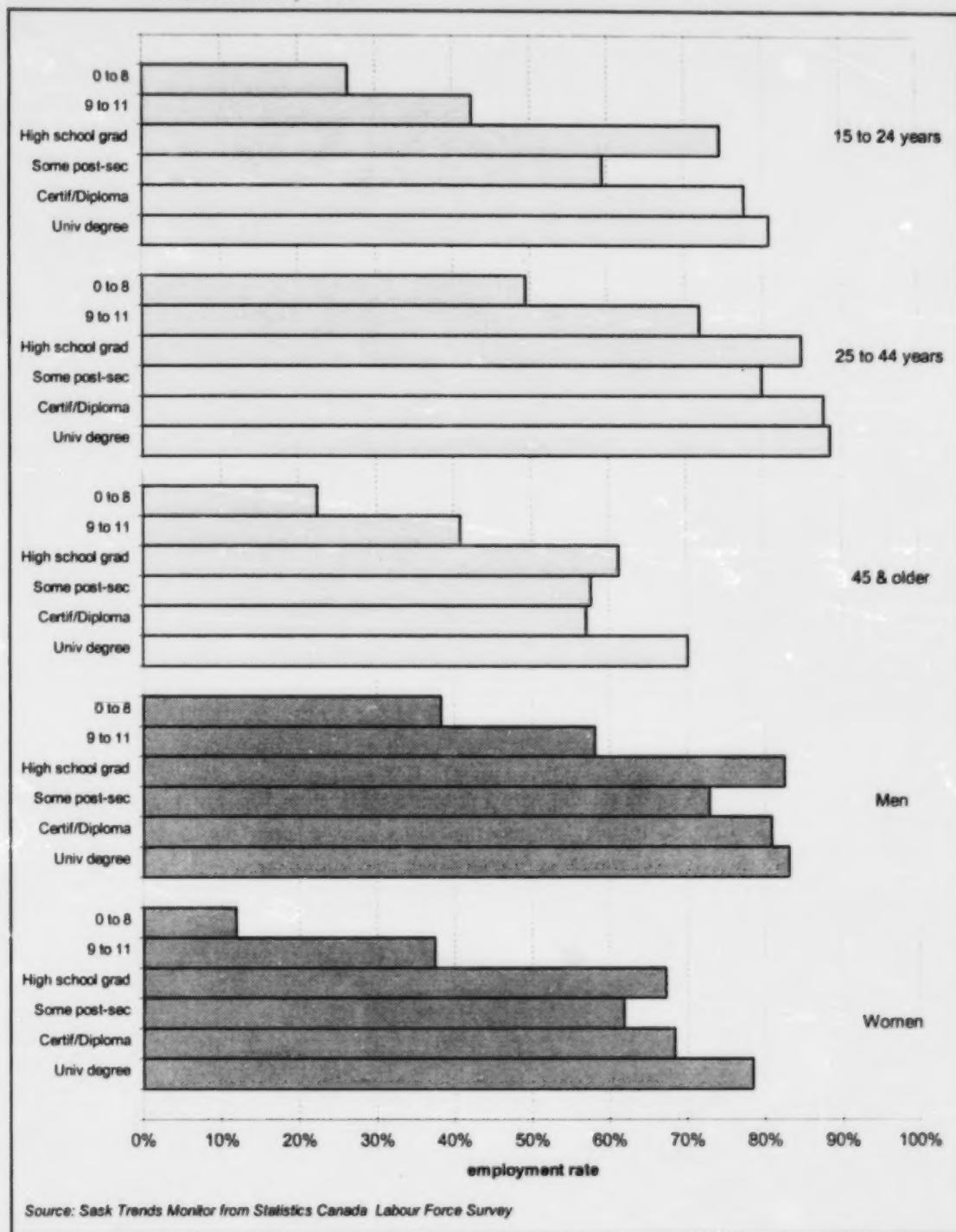
- ▶ Employment rates are lower for those with "some post-secondary" education compared with those who have graduated from high school. This is largely a consequence of the fact that many of those in the "some post-secondary" category are still attending school⁸.
- ▶ Employment rates for those with a university degree are only slightly higher than employment rates for those with a post-secondary (university or non-university) diploma or certificate.
- ▶ The same pattern holds for men and women although overall employment rates are lower for women.

In summary, employment is directly and strongly correlated with the level of completed education with the highest employment rates among those with at least Grade 12 graduation.

⁸

In 1998, the employment rate for 20 to 24 year olds with "some post-secondary education" was 85% among non-students and 40% among students.

Figure 2.33 Employment Rates by Completed Education, Age Group, and Gender, Saskatchewan, 1998



Formal Education Levels by Occupation

A further examination of the relationship between education and employment was undertaken for this report. The data that follows are still derived from the LFS but not from the normally published sources. Instead, the microdata files from the LFS⁹ were used to examine education by occupation group. The occupation groups in the LFS microdata files differ from those in Appendix A because they are based on the 1980 SOC rather than the newer 1990 SOC.

To improve the accuracy of the data, two years of data, 1997 and 1998, were combined to calculate the proportions in Figure 2.34. For each of the 48 occupation groups, the figure shows the proportion of job holders who have at least some post-secondary education. The proportion ranges from a low of 15% in logging/forestry/fishing/trapping occupations to a high of 100% in health diagnosis/treatment occupations.

The proportion with a post-secondary education approaches 100% for most occupations in health and education although systems analysts and architects/engineers are also in this group. In many clerical occupations (bookkeeping, reception, stenographer, for example) the proportion with a post-secondary education is above 50%. Occupations in manufacturing also tend to have a high level of post-secondary training including:

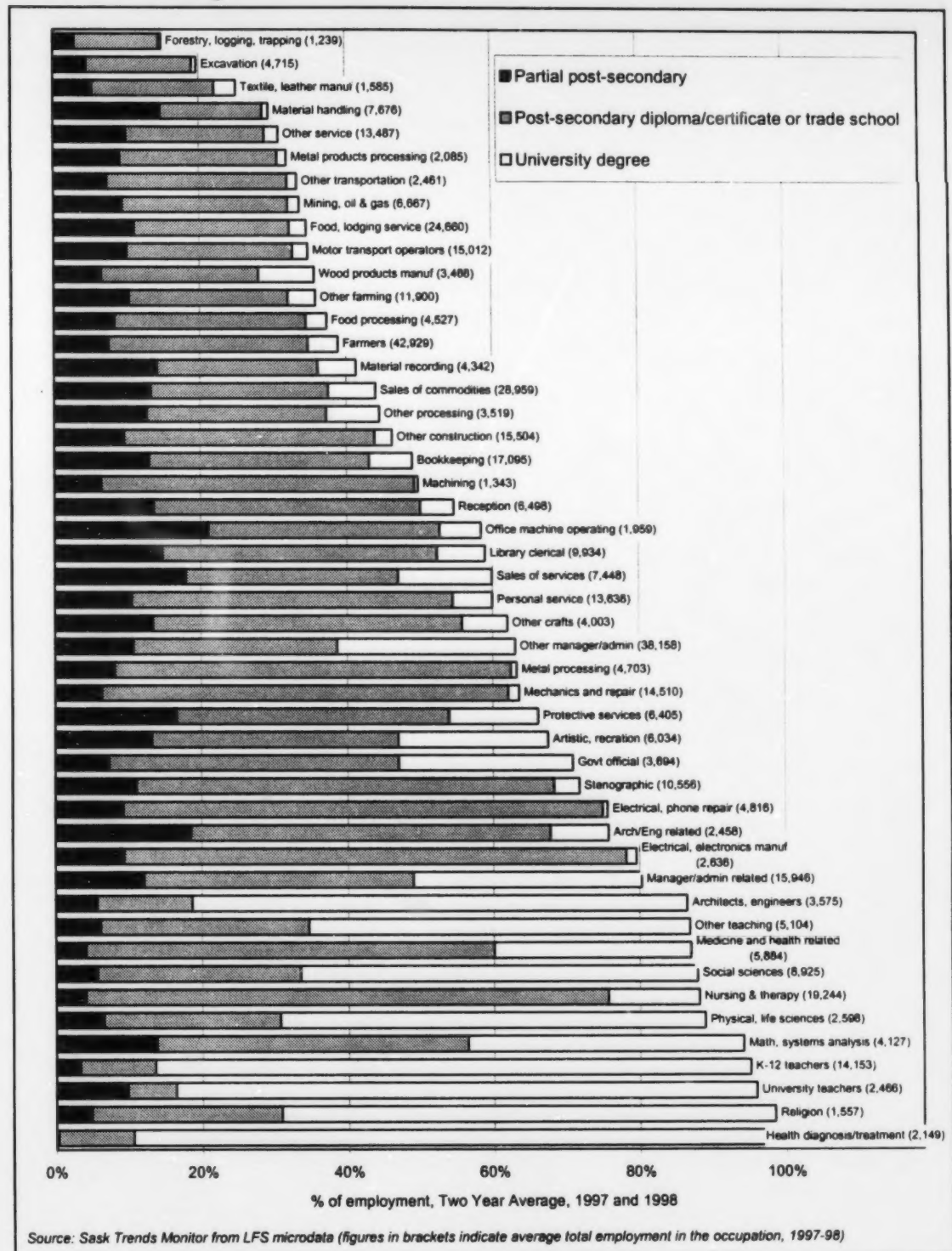
- ▶ electrical/electronic manufacturing (80%);
- ▶ metal processing (64%); and
- ▶ machining (50%).

Lower levels of post-secondary education are more evident in sales occupations, particularly the sale of commodities (44%) rather than the sale of services (60%).

Occupations that are both common and with a proportion less than 40% are dominated by the personal/household services industry, namely the "other service" and "food/lodging service" categories. Farmers and motor transport operators are also in this group.

⁹ Microdata files are the actual survey responses, with appropriate modifications to ensure respondent confidentiality.

Figure 2.34 Percent of Employment by Post-Secondary Education Level, 1997 and 1998 Average



2.7 Sub Provincial Regions

For the purposes of the Labour Force Survey, the province is divided into seven areas including the two Census Metropolitan Areas (CMAs) of Regina and Saskatoon. The map in Figure 2.35 shows the two CMAs as shaded areas and the five economic regions outside of the two cities. The "North" extends all the way to the provincial boundary with the NWT. Over one half of the provincial employment occurs in the two CMAs with the Saskatoon CMA accounting for 28.5% of 1998 employment and the Regina CMA accounting for 27.3%. The North accounted for only 2.5% of employment in 1998 (see Figure 2.36).

Since 1987, employment has grown in only three of these economic regions — the two CMAs of Regina and Saskatoon, and the North (see Figure 2.37). The decline is the smallest in the Southeast (average decline of 0.2% per year) and the largest in the East Central region (average decline of 0.9% per year).

Figure 2.35 Saskatchewan Economic Regions

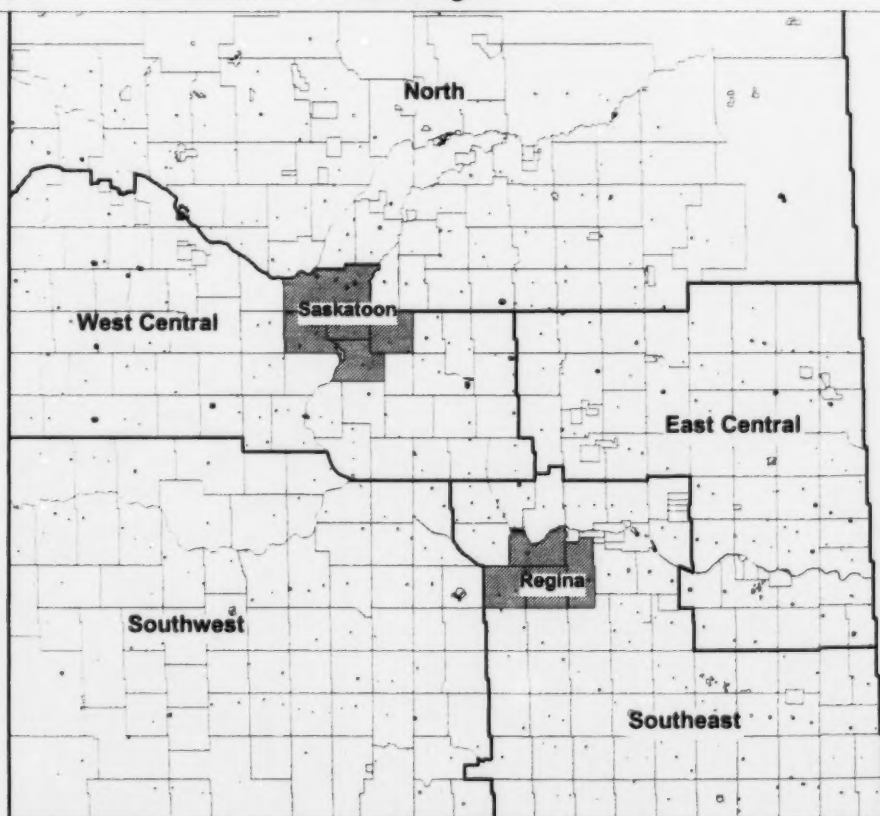


Figure 2.36 Share of 1998 Employment, Economic Regions

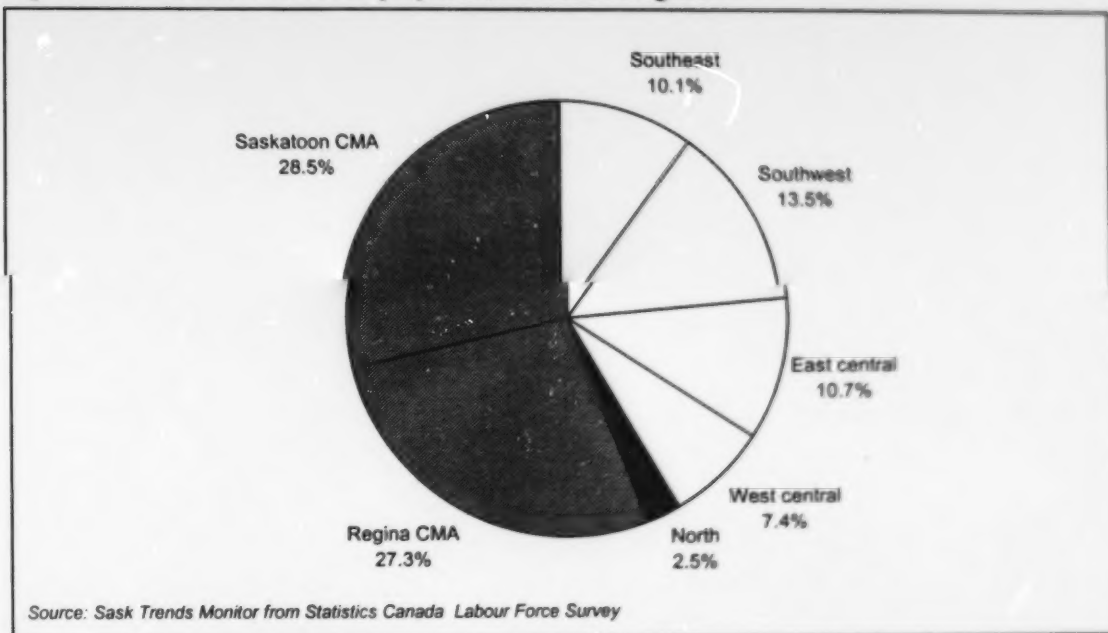
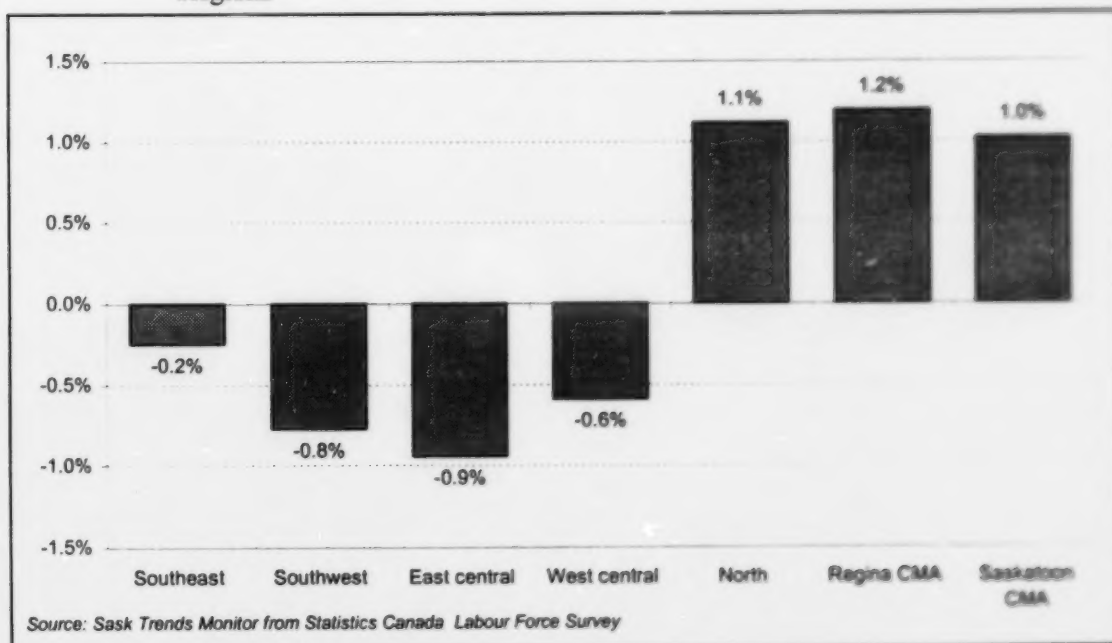


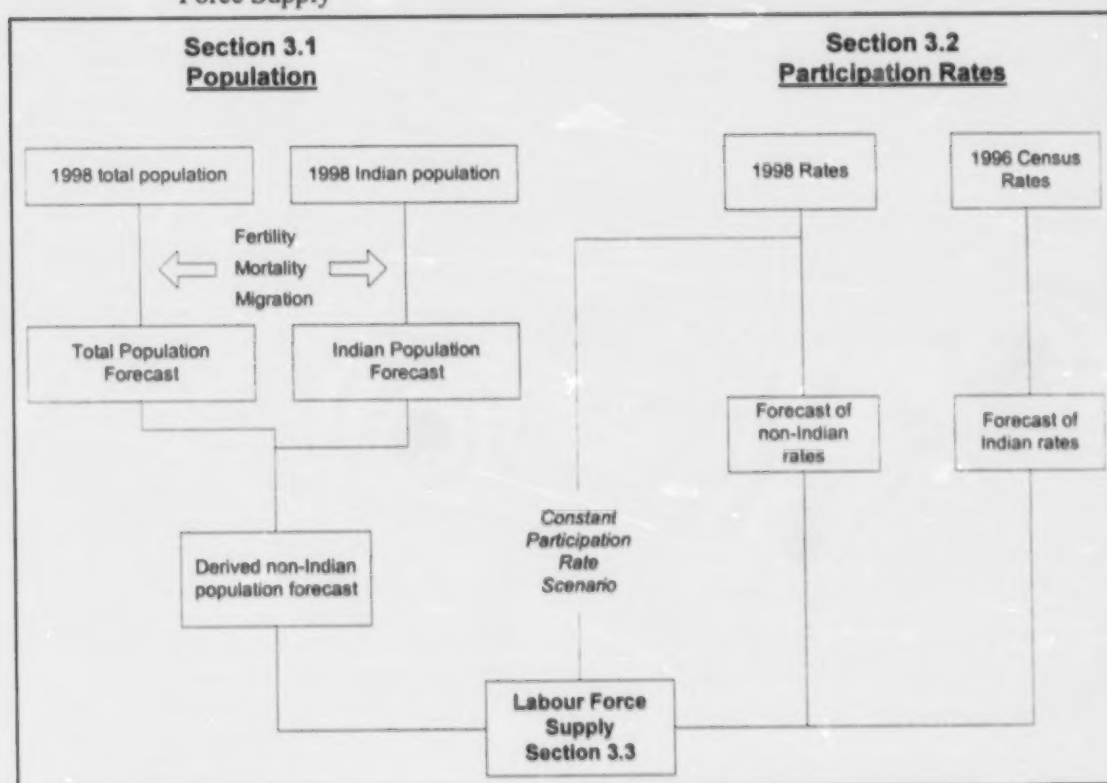
Figure 2.37 Average Annual Increase in Employment, 1987 to 1998, Saskatchewan Economic Regions



3.0 POPULATION AND LABOUR FORCE PROJECTION

This section contains a forecast of labour market supply in Saskatchewan. The forecast is based on a population forecast for the province broken down by age group, gender, and Registered Indian status¹⁰ (see diagram). Participation rates by age group, gender, and Indian status can then be applied to these population subgroups to estimate the size of the potential labour force for the next twenty years. Three different inter-provincial migration scenarios are shown in the population forecast.

Figure 3.1 Methodology and Report Organization for Forecasting Population and Labour Force Supply



¹⁰

The population of "Registered Indians" rather than the Aboriginal population is used because mortality and fertility rates for the non-Indian Aboriginal population are not known and because detailed age breakdowns for the Registered Indian population over the past few years are readily available. Registered Indians are those who are "registered" under *The Indian Act* of Canada; they make up about 2/3 of the Aboriginal population in the province.

3.1 Population Projection

The first step in forecasting the labour market supply is to develop a projection of the provincial population by gender and age group. Because the Aboriginal population generally and the Registered Indian population specifically have different demographic characteristics and different labour market characteristics, this subgroup of the population is projected separately. The non-Indian population is then calculated as the residual between the total population and the Indian population.

Population Projection Methodology and Assumptions

The model used to forecast both the provincial and the Registered Indian population uses a cohort-survival methodology. In simple terms, this methodology assumes that, over a five-year period, and except for migration and mortality, all members of the population grow five years older. For example, if there were 50,000 persons aged 15-19 in 1998, then there would be 50,000 persons (less mortality/migration) aged 20-24 in 2003.

The number of newborns is calculated from age-specific fertility rates applied to the number of women of child-bearing age in the population. Fertility rates are based on the 1991 to 1995 average rates for Saskatchewan women (see Table 3.1).

The model calculates and uses historical mortality/migration rates to estimate the effect of migration. The proportion of the population in each 5-year age group is compared with the population five years ago in the younger age group. A rate greater than 1.0 indicates net in-migration in excess of mortality. The proportion who "survive" for the five years is used in the projection as a combined measure of mortality/migration. Survival rates for those under 5 years of age cannot be calculated with this method so the rates are estimated using the rates for 5-9 year olds. The net effect of this methodology is to assume that the mortality/migration pattern that was occurring over the previous five years continues into the future. Saskatchewan Health's "covered population" is used to calculate these survival rates.

Table 3.1 Assumed Fertility Rates for Population Projections

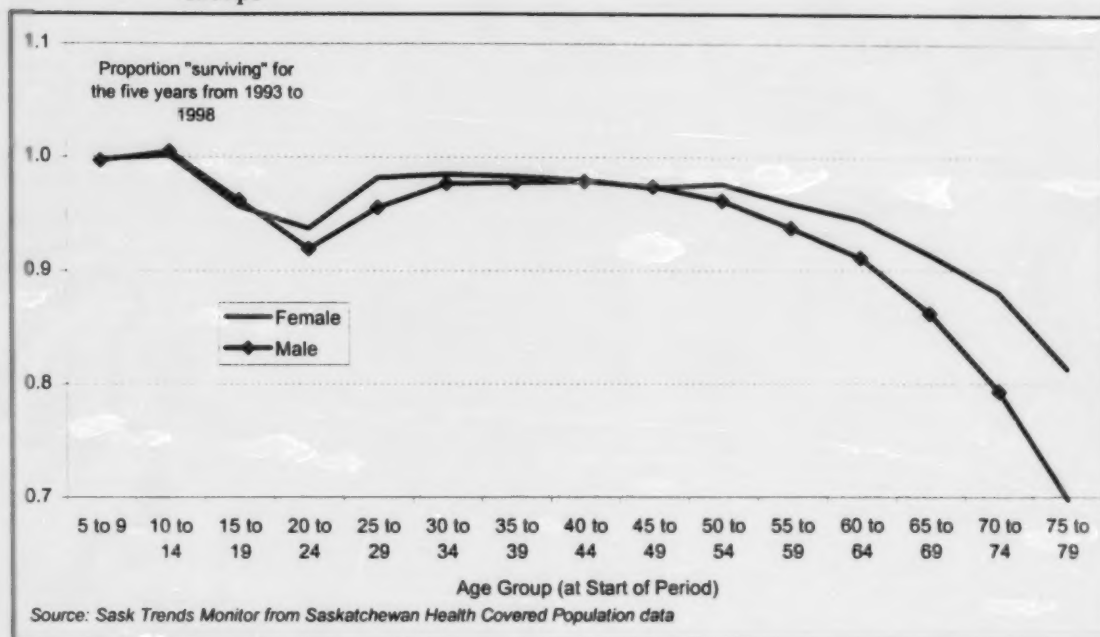
Age group	Births per 1000 women 1991 to 1995 average	
	General	Registered Indian
15 to 19	45	147
20 to 24	106	201
25 to 29	135	127
30 to 34	81	68
35 to 39	25	29
40 to 44	4	7
45 to 49	0	0

Source:

General population — Statistics Canada Report on the Demographic Situation in Canada

Registered Indian — Medical Services Branch, Health Canada

Figure 3.2 Calculated "Survival Rates" for Five Year Migration Pattern, Selected Age Groups

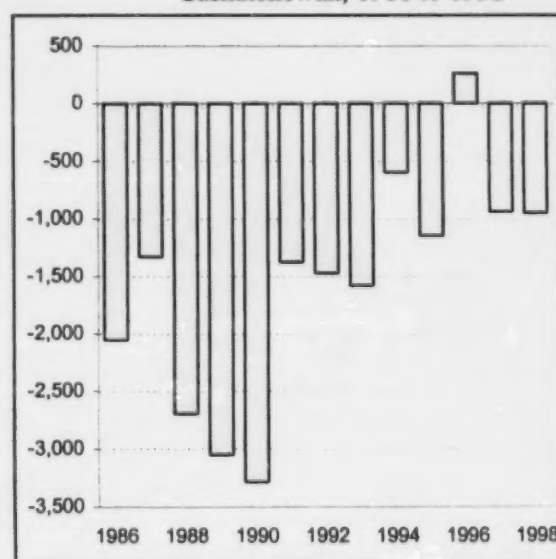


As an example, Figure 3.2 shows these calculated survival rates for the 1993-1998 period. The "dip" in the survival rates for the 15 to 24 age group is an effect of out-migration from the province. The lower rates at the higher age groups are more a consequence of mortality than migration. The age-related pattern for the five-year and ten-year rates are similar although the rates are generally lower for the ten-year pattern because of the higher levels of out-migration in the late 1980s and early 1990s. (Figure 3.3 shows net inter-provincial migration data from Statistics Canada.)

Other assumptions made in projecting the population are described below.

- ▶ The base population used in the model as the "starting point" is Saskatchewan Health's "covered" population as of July 1998. Similar results would be obtained if Statistics Canada's population estimates were used instead.
- ▶ The number of male births is assumed to be 51% of the total.

Figure 3.3 Net Interprovincial Migration, Saskatchewan, 1986 to 1998



- ▶ There is no ongoing improvement in mortality rates built into the model nor is there any decline in the fertility rates over time. Both of these current trends are expected to continue but the omission is not significant over the twenty-year forecast period because the effects of migration overwhelm trends in mortality and fertility rates. Neither trend significantly affects the size of the labour force age group because i) mortality rate improvements typically occur above the age of 55 and ii) there is a lag of at least 15 years between changes in fertility and changes in the number of new entrants to the labour force.
- ▶ For reference purposes, a zero net migration scenario is included in this report. This scenario uses only mortality when calculating the "survival rates". For that calculation, the mortality rates used are 1995 rates for Saskatchewan.

Over the longer term, twenty or more years, the results from the model become less reliable because of the fertility rate assumption. The assumed births in the early part of the forecast period reach the family formation age group and their children are then introduced into the model, compounding any differences between actual and assumed fertility rates. This is not a major concern because we are primarily interested in those in the labour force age group measured over the course of a single generation.

The reliability of the projection over the short term is dependent upon the reliability of the assumed migration rates. The overall level of Saskatchewan's inter-provincial migration is extremely volatile and depends on the availability of work, particularly seasonal work, in both Saskatchewan and Alberta. Migration related to post secondary education is also thought to be a factor in determining the number of young people leaving the province. The age structure of migrants, on the other hand, is relatively stable and can be reliably forecast.

3.1.1 Total Population

Table 3.2, on the next page, shows the projected population over the next twenty years according to the three scenarios. Figure 3.4 shows how the three scenarios compare in terms of overall population size. Details of the population projection are included in Appendix 2.

The “zero net migration” scenario is clearly the most optimistic of the three scenarios. It shows a provincial population that grows at an average annual rate of approximately 0.5% for the next twenty years. The growth occurs because the zero net-migration effectively assumes that persons in the family formation age group remain in the province.

If the observed patterns of migration/mortality over the last five years continue, then the growth rate will be much slower at 0.2% per year. The “worst case” scenario is the one where the migration/ mortality pattern over the past ten years continues. Here, the population declines by 0.2% per year.

The three scenarios also show a different point in the future where the size of the dominant labour force age group (15 to 64) begins to decline. In the zero-net migration scenario, the peak occurs in 2013 whereas it occurs in 2008 under the five-year and ten-year migration scenarios.

Figure 3.4 Comparison of Total Population According to the Three Scenarios

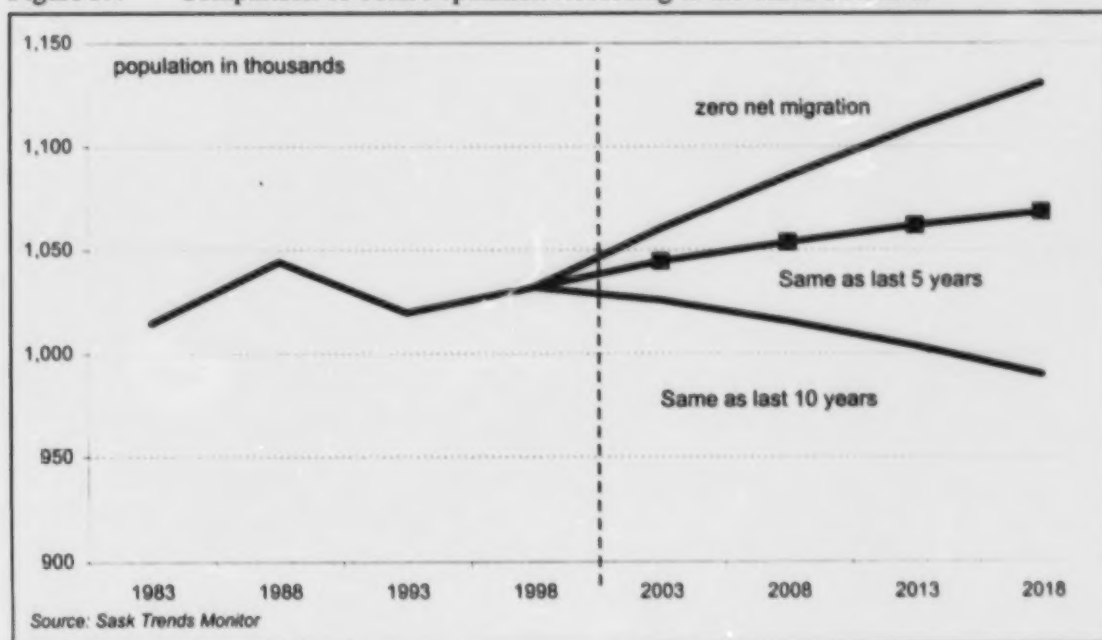


Table 3.2 Projected Population, Various Scenarios

	Actual			Projected (Zero Net Migration)			
	1988	1993	1998	2003	2008	2013	2018
Total	1,044,151	1,019,566	1,031,933	1,060,288	1,085,506	1,109,498	1,130,554
Annual growth rate	0.6%	-0.5%	0.2%	0.5%	0.5%	0.4%	0.4%
Age Group							
Under 5	85,303	77,665	68,325	66,518	68,442	71,261	71,401
5 to 19	244,538	237,887	240,487	227,626	212,814	202,268	205,196
20 to 44	399,799	377,196	372,402	371,618	368,720	375,141	376,256
45 to 64	180,398	183,217	201,888	237,949	273,067	287,468	285,277
65 and older	134,113	143,601	148,831	156,577	162,464	173,360	192,423
15 to 64	659,813	636,612	655,016	690,466	720,350	730,507	727,636
20 to 54	490,807	476,700	491,543	515,597	528,062	525,177	509,526

	Actual			Projected (Five Year Migration)			
	1988	1993	1998	2003	2008	2013	2018
Total	1,044,151	1,019,566	1,031,933	1,044,480	1,053,548	1,061,648	1,068,130
Annual growth rate	0.6%	-0.5%	0.2%	0.2%	0.2%	0.2%	0.1%
Age Group							
Under 5	85,303	77,665	68,325	72,368	71,729	72,663	72,037
5 to 19	244,538	237,887	240,487	229,095	221,327	215,292	219,695
20 to 44	399,799	377,196	372,402	359,765	346,401	343,257	337,944
45 to 64	180,398	183,217	201,888	234,803	266,210	276,374	269,727
65 and older	134,113	143,601	148,831	148,450	147,880	154,062	168,727
15 to 64	659,813	636,612	655,016	675,788	691,410	688,955	681,096
20 to 54	490,807	476,700	491,543	501,816	501,565	487,244	463,188

	Actual			Projected (Ten Year Migration)			
	1988	1993	1998	2003	2008	2013	2018
Total	1,044,151	1,019,566	1,031,933	1,025,731	1,015,383	1,003,483	989,703
Annual growth rate	0.6%	-0.5%	0.2%	-0.1%	-0.2%	-0.2%	-0.3%
Age Group							
Under 5	85,303	77,665	68,325	69,496	67,118	66,351	64,325
5 to 19	244,538	237,887	240,487	224,608	211,126	199,335	197,387
20 to 44	399,799	377,196	372,402	350,967	329,650	318,802	306,549
45 to 64	180,398	183,217	201,888	232,658	260,443	266,407	255,241
65 and older	134,113	143,601	148,831	148,002	147,046	152,588	166,201
15 to 64	659,813	636,612	655,016	663,420	665,969	650,517	628,217
20 to 54	490,807	476,700	491,543	491,436	480,633	456,161	423,173

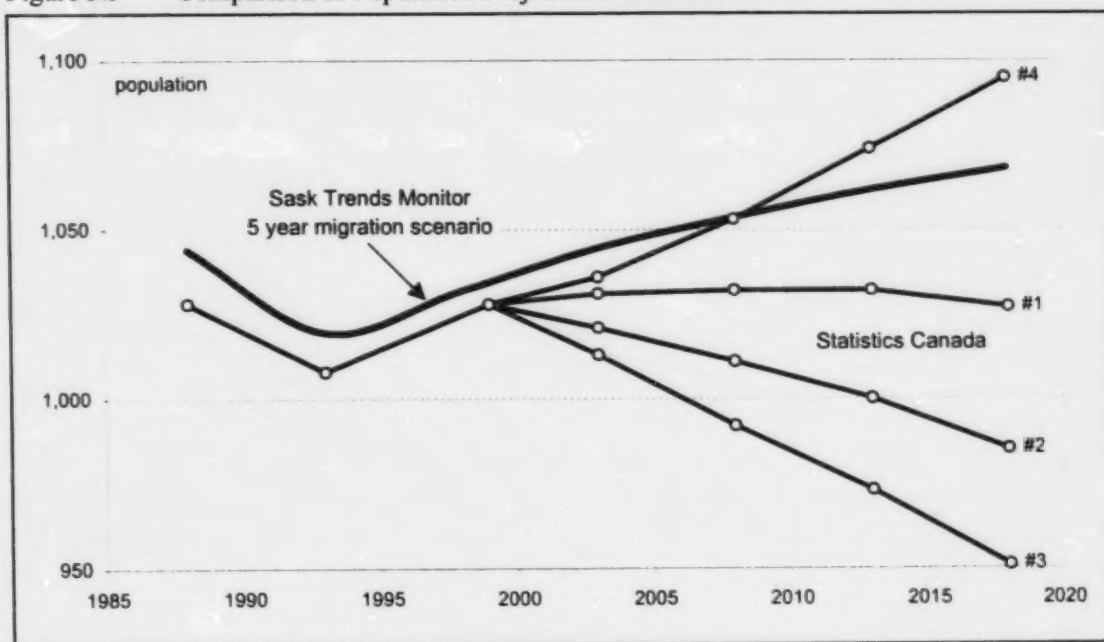
Source: Sask Trends Monitor

Other population projections have been made by various organizations but for reference purposes, we have only compared this projection with those that Statistics Canada has prepared for the province¹¹. There are four scenarios for the province's population in Statistics Canada's projections. The underlying assumptions for these projections are:

- ▶ Projection #1 — low fertility rates, little improvement in mortality rates, low levels of international immigration, interprovincial migration favouring Ontario, Quebec, Manitoba and Saskatchewan;
- ▶ Projection #2 — medium fertility rates, some improvement in mortality rates, medium levels of international immigration, interprovincial migration stable;
- ▶ Projection #3 — high fertility rates, improvement in mortality rates, high levels of international immigration, interprovincial migration favouring British Columbia and Alberta;
- ▶ Projection #4 — high fertility rates, improvement in mortality rates, high levels of international immigration, interprovincial migration favouring Ontario, Quebec, Manitoba and Saskatchewan;

Figure 3.5 shows that the population figures used here are generally higher than those used by Statistics Canada. The population growth rates under the five-year migration scenario are similar to those for Statistics Canada's projection #1.

Figure 3.5 Comparison of Population Projections for Saskatchewan

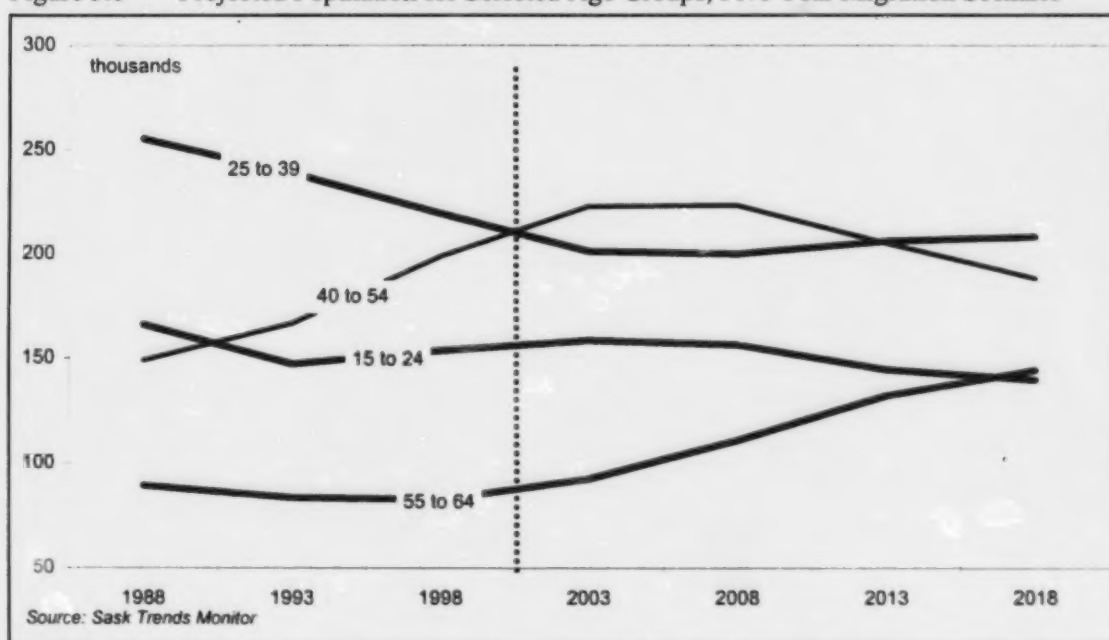


¹¹ Population Projections for Canada, Provinces and Territories, 1993-2016, Catalogue #91-520, published January, 1995

The sizes of the relevant age groups under the *Sask Trends Monitor* five-year migration scenario are shown in Figure 3.6. Over the twenty years of the forecast period, the population in the “baby boom” age group (currently 40 to 54) continues to increase for five to ten years and then begins to decline. It is replaced by an increase in the number of persons in the 55 to 64 age group.

The second observation is that those in the younger age groups, 15 to 24 and 25 to 39, are part of the “echo” from the baby boom generation and the growth in the Aboriginal population. There is a slight increase in the size of these populations; early in the period for those 15 to 24 and near the end of the period for those 25 to 39.

Figure 3.6 Projected Population for Selected Age Groups, Five Year Migration Scenario



3.1.2 Registered Indian Population

The same population model can be used to forecast the size of the Registered Indian¹² population although, of course, the parameters need to be changed. In particular, the mortality and fertility rates need to be adjusted and the combined migration/mortality rates need to be recalculated.

For the fertility rates, the age-specific rates for Saskatchewan Indian women are shown in Table 3.1. These rates are substantially higher than for the non-Indian population, especially in the younger age groups. For example, among 20 to 24 year old Indian women, the fertility rate is 201 per 1000 compared with 106 for the general population of Saskatchewan women.

Reliable age-specific mortality rates are not available for the Registered Indian population in Saskatchewan, because the population is too small to calculate such rates. The zero-net migration scenario (mortality only) uses a mortality rate that is assumed to be two times the general rate for the province¹³.

The combined mortality/migration "survival rates" for the Registered Indian population are shown in Figure 3.7 for the ten-year period 1988-1998. There is a substantially different pattern to these rates than for the general Saskatchewan population (shown in Figure 3.2).

Firstly, the "survival rates" for those under 50 year of age are in excess of 1.0 and they are particularly high for those in the younger age groups. There are two reasons for this. The first is that out-migration is not as prevalent among the Indian population as it is among the non-Indian population. These figures suggest that there may, in fact, be net in-migration to the province. The second reason is a consequence of legislated changes governing the definitions of "Registered Indians". Bill C-31 permits certain persons who were not previously eligible and with mixed ancestry to become Registered so there is some movement from the non-Indian Aboriginal population to the Indian Aboriginal population by virtue of this legislation¹⁴.

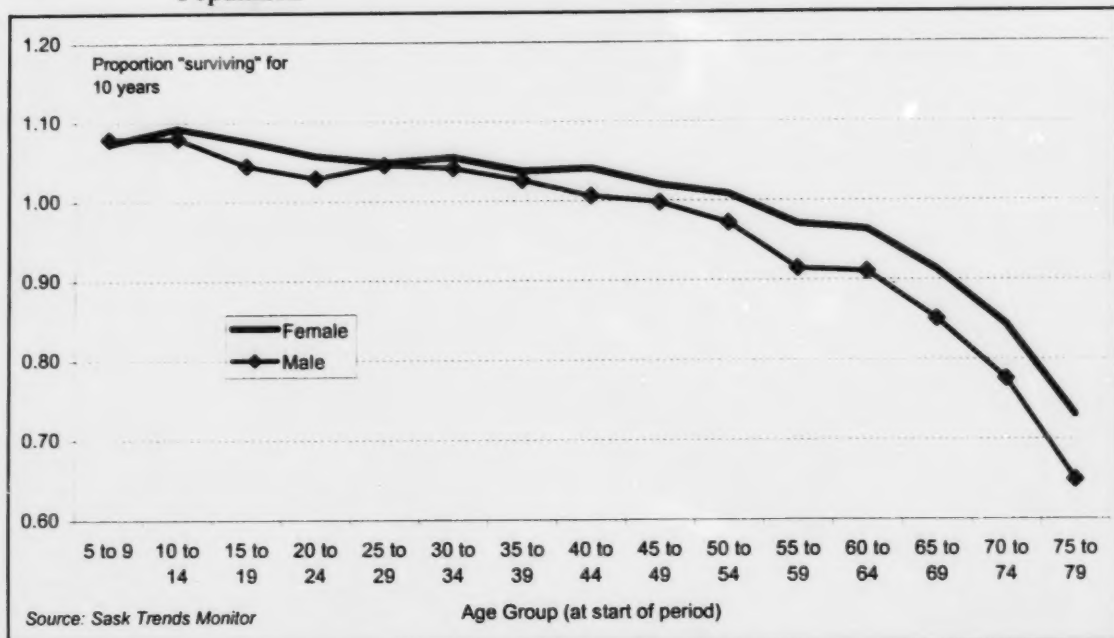
¹² The population of "Registered Indians" rather than the Aboriginal population is used because mortality and fertility rates for the non-Indian Aboriginal population are not known and because detailed age breakdowns for the Registered Indian population over the past few years are readily available. Registered Indians are those who are "registered" under *The Indian Act* of Canada; they make up about 2/3 of the Aboriginal population in the province.

¹³ Detailed age and sex specific mortality rates are not available for the Registered Indian population in the province. We do know that the infant mortality rate is approximately twice the provincial average. The rate for 5 to 14 year olds and seniors is about the same, the rate for those 15 to 24 is 1.5 times as high, and the rate for 25 to 44 year olds is 2.5 times as high. The overall average of two times as high was taken as an estimate.

¹⁴ Note that this has an effect on the population projection because these survival rates are assumed to continue into the future. This means that we are forecasting this "re-designation" to continue, something that is unlikely to happen because only some non-Indian Aboriginal people are eligible. As a consequence, the forecasted population for Registered Indians may be somewhat overstated.

The other difference between the survival rates is that in older age groups, the rates are lower for the Indian population than for the general population. This is a simple consequence of the higher mortality rates among the Indian population.

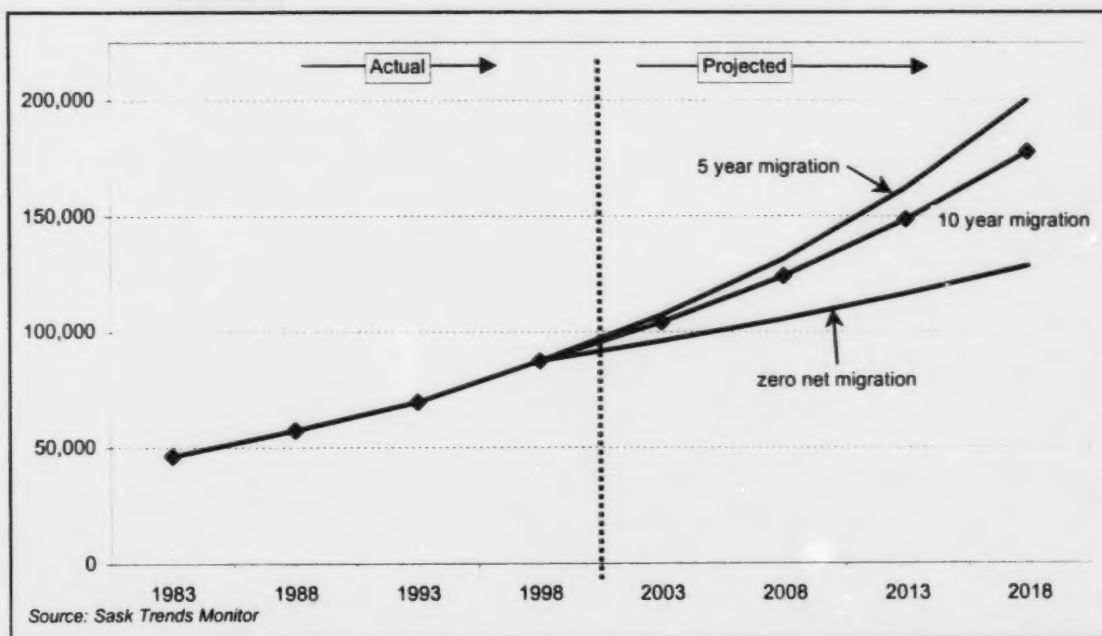
Figure 3.7 Assumed Survival Rates, Ten Year Migration Scenario, Registered Indian Population



Results for the Indian Population

The results of the projection for Registered Indians are shown in Table 3.3 and graphically in Figure 3.8. More detail is provided in Appendix 3. Unlike the projection for the general population, the zero net migration scenario produces lower growth rates because it assumes no in-migration and no transfers to Indian status resulting from Bill C-31.

Figure 3.8 Comparison of Registered Indian Population Projection According to the Three Scenarios



There are other population forecasts available for the Saskatchewan Registered Indian population but the most well-publicized is the projection contained in the Federation of Saskatchewan Indian Nations (FSIN) study¹⁵. The projection in the FSIN study is compared with this forecast in Figure 3.9. Compared with the two migration scenarios in this projection, the declining fertility rates implicit in the FSIN projection lead to a lower rate of increase (approximately 2.3% per year) for the population although the absolute numbers start out much higher. The zero-net migration scenario shows a lower growth rate than in the FSIN projection.

The age breakdown for the projected population under the 10 year migration scenario is shown in Figure 3.10.

¹⁵ Saskatchewan and Aboriginal Peoples in the 21st Century

Figure 3.9 Comparison of Population Projections for the Saskatchewan Registered Indian Population

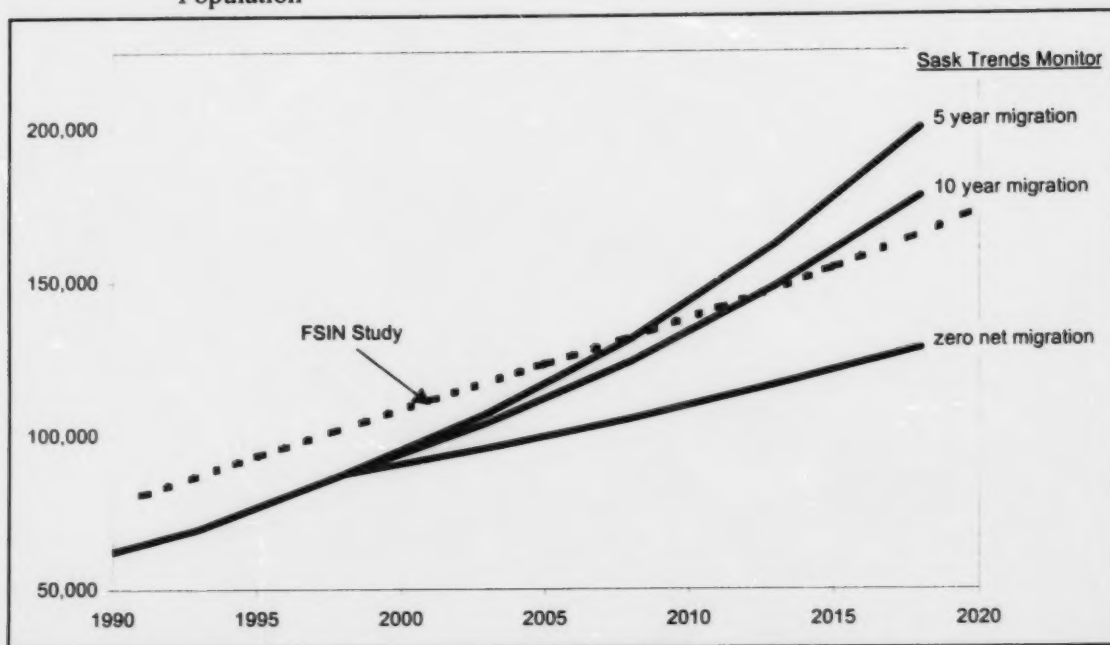


Figure 3.10 Projected Population for Selected Age Groups, Registered Indians, Ten Year Migration Scenario

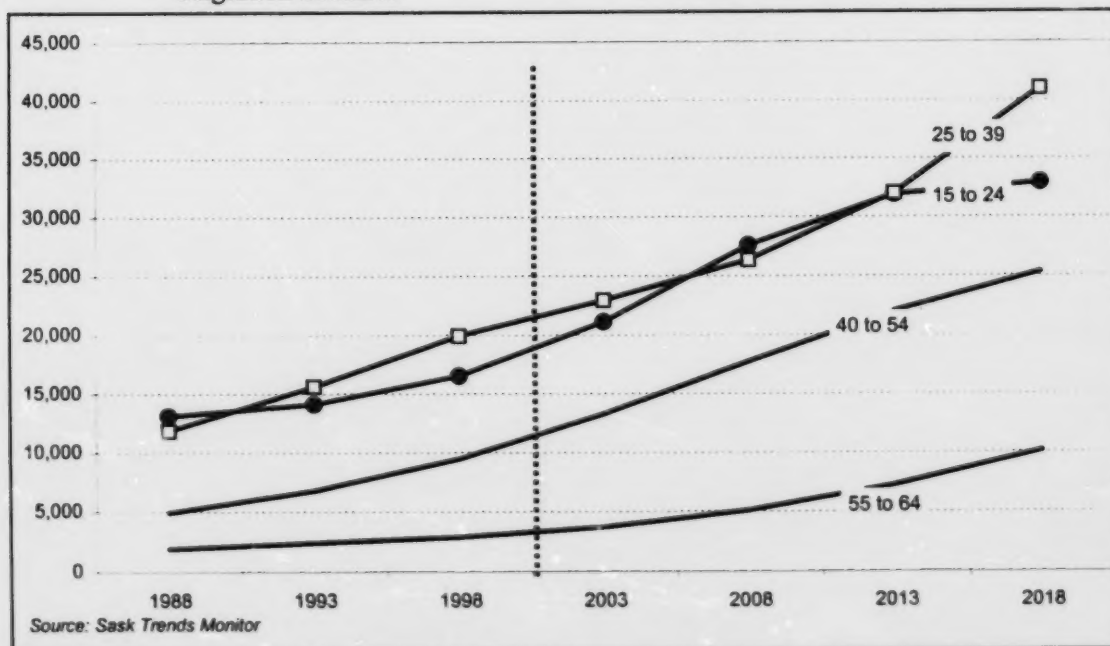


Table 3.3 Projected Population, Registered Indians, Various Scenarios

	Actual			Projected (Zero Net Migration)			
	1988	1993	1998	2003	2008	2013	2018
Total	57,372	69,268	87,426	95,926	105,439	116,406	128,328
Annual growth rate	4.3%	3.9%	4.7%	1.9%	1.9%	2.0%	2.0%
Age Group							
Under 5	9,421	11,294	12,419	10,196	11,462	13,301	14,749
5 to 19	21,400	24,566	32,554	36,006	35,268	33,736	34,620
20 to 44	20,105	25,562	31,823	36,094	40,880	46,641	51,216
45 to 64	4,770	6,158	8,099	10,719	14,331	18,427	22,191
65 and older	1,676	2,048	2,531	2,910	3,500	4,299	5,560
15 to 64	31,727	38,811	48,735	57,610	68,063	77,333	83,477
20 to 54	22,981	29,339	37,048	42,307	50,439	58,572	64,679

	Actual			Projected (Five Year Migration)			
	1988	1993	1998	2003	2008	2013	2018
Total	57,372	69,268	87,426	107,222	131,490	162,073	196,907
Annual growth rate	4.3%	3.9%	4.7%	4.2%	4.2%	4.3%	4.3%
Age Group							
Under 5	9,421	11,294	12,419	13,069	16,289	21,198	26,538
5 to 19	21,400	24,566	32,554	40,882	47,237	43,384	64,044
20 to 44	20,105	25,562	31,823	39,040	48,414	61,164	75,080
45 to 64	4,770	6,158	8,099	11,183	15,798	21,605	27,933
65 and older	1,676	2,048	2,531	3,047	3,752	4,754	6,396
15 to 64	31,727	38,811	48,735	62,364	80,518	100,702	121,968
20 to 54	22,981	29,339	37,048	46,486	59,030	75,375	92,430

	Actual			Projected (Ten Year Migration)			
	1988	1993	1998	2003	2008	2013	2018
Total	57,372	69,268	87,426	104,128	124,071	148,513	177,600
Annual growth rate	4.3%	3.9%	4.7%	3.6%	3.6%	3.7%	3.6%
Age Group							
Under 5	9,421	11,294	12,419	12,581	15,232	19,134	23,035
5 to 19	21,400	24,566	32,554	39,242	43,464	47,329	54,923
20 to 44	20,105	25,562	31,823	38,149	48,102	56,425	66,906
45 to 64	4,770	6,158	8,099	11,098	15,450	20,787	26,396
65 and older	1,676	2,048	2,531	3,067	3,823	4,837	6,437
15 to 64	31,727	38,811	48,735	60,980	76,055	93,091	108,285
20 to 54	22,981	29,339	37,048	45,538	56,468	70,019	83,128

Source: Sask Trends Monitor

3.1.3 Non-Indian Population

The calculation of the potential labour force in Section 3.4 will be done separately for the Indian and non-Indian¹⁶ population so it is also necessary to have a population projection for the non-Indian population. This is derived by simply subtracting the Indian population from the total population although there are nine possibilities, depending on the scenarios chosen for the total and Indian populations.

Table 3.4 shows the total adult non-Indian population for each of these nine combinations. More detail is available in Appendix 2.

Table 3.4 Derived Non-Indian Population, 15 Years and Older, Various Scenarios

Scenario for Total Population	Scenario for Indian Population	Actual			Projection			
		1988	1993	1998	2003	2008	2013	2018
Zero Net Migration	Zero Net Migration	760,523	739,354	752,581	786,523	811,251	822,234	831,032
	Five Year Migration Pattern	760,523	739,354	752,581	781,631	798,544	798,412	791,835
	Ten Year Migration Pattern	760,523	739,354	752,581	782,969	802,335	805,939	804,357
Five Year Migration Pattern	Zero Net Migration	760,523	739,354	752,581	763,719	767,728	761,384	760,796
	Five Year Migration Pattern	760,523	739,354	752,581	758,826	755,021	737,561	721,599
	Ten Year Migration Pattern	760,523	739,354	752,581	760,165	758,813	745,088	734,121
Ten Year Migration Pattern	Zero Net Migration	760,523	739,354	752,581	750,903	741,452	721,472	705,391
	Five Year Migration Pattern	760,523	739,354	752,581	746,011	728,745	697,650	666,194
	Ten Year Migration Pattern	760,523	739,354	752,581	747,349	732,536	705,177	678,717

Source: Sask Trends Monitor

¹⁶ The term "Non-Indian" in this report is used to refer to all persons other than First Nations members who are registered under the Indian Act. In other words, it refers to non-Aboriginals, Métis, and any Aboriginal people who are not registered.

3.1.4 Summary

There are nine possible combinations of population scenarios described in the previous pages. Before the labour force participation rates are forecast, it is necessary to choose a particular scenario for population growth, the scenario considered most likely to develop.

In the author's view, the most probable scenarios for population growth are:

- the five-year migration pattern for the general population; and
- the ten-year migration pattern for the Registered Indian population.

The chosen pattern for the general population is part way between the "worst case" scenario where the population declines because of out-migration and the "best case" scenario with zero net migration. The province is unlikely to return to the worse case migration scenario given the projected shortage of employees and a steady demand for labour. On the other hand, out-migration is unlikely to completely stop (the "best case" scenario) because there is a long established trend for young people to leave the province and because Alberta will continue to be a popular destination. On balance, the middle scenario seems the most likely to occur.

The ten-year pattern for the Indian population is chosen because it forecasts a rate of growth most closely resembling the experience in the recent past. This scenario implicitly assumes some continuation of "re-designation" under Bill C31.

In the balance of this report, references to the size of the population in the future will, unless otherwise indicated, refer to the population projected using the above set of scenarios.

3.2 Labour Force Participation Rates

The projected population can be translated into a supply of labour by using age-specific participation rates — the proportion of the population that is in the labour force, that is, either employed or unemployed. In this section, participation rates are forecast for the next twenty years. These are then applied to the population projections from section 3.1 to yield the potential size of the labour force¹⁷ for the next twenty years.

There is a discrepancy between the size of the labour force in this report and the ones currently published in the Labour Force Survey (LFS) by Statistics Canada. For example, the 1998 labour force according to the LFS was 508,600. When 1998 participation rates from the LFS are applied to the 1998 population used in the forecast, the size of the 1998 labour force is more than 2% higher at 519,960. This is because the population 15 and older used in the Labour Force Survey is 763,800 compared with 803,800 for the "covered" population used in this report. Some of this 40,000 difference in populations can be explained by the fact that the LFS does not count the on-Reserve population, estimate at 25,600 in 1998. The remaining difference is attributable to the observations that:

- i) the covered population is typically somewhat higher than the actual population; and
- ii) the LFS has not yet been "rebased" to the 1996 census.

The figures in this report, for both the past and the future, will be somewhat higher than the labour force figures published by Statistics Canada.

¹⁷ The term "potential labour force" is used throughout this report to indicate the number of persons who are working or are available for work. The actual labour force will be less than the potential labour force if employment opportunities are limited.

3.2.1 Constant Participation Rates

As a reference point, the current participation rates (1998 values) for the Saskatchewan population are used to derive the potential labour force if there had been no change in participation rates in the past and if these rates remained in effect for the future. Table 3.5 shows these participation rates by age and gender.

When these constant rates are applied to the Saskatchewan population from 1983 to 2018, the size of the potential labour force increases to 2008 and then begins to decline (see Figure 3.11). This is not intended to predict what will happen but as an illustration of the fundamental structure of the labour market, namely that the age structure of the population is biased toward a decline in the labour force.

The decline is a direct result of the aging of the population. From 2008 to 2018, the “baby boom” generation moves increasingly into the 55 and older age groups, age groups that have a significantly lower labour force participation rate.

Of course, there is no reason to expect participation rates to remain constant. Section 2.2 in this report documents changes in labour force participation rates in the past. We can expect these rates to continue to change in the future but the question is whether or not an increase in the rates will be sufficient to counteract the drop in the size of the labour force.

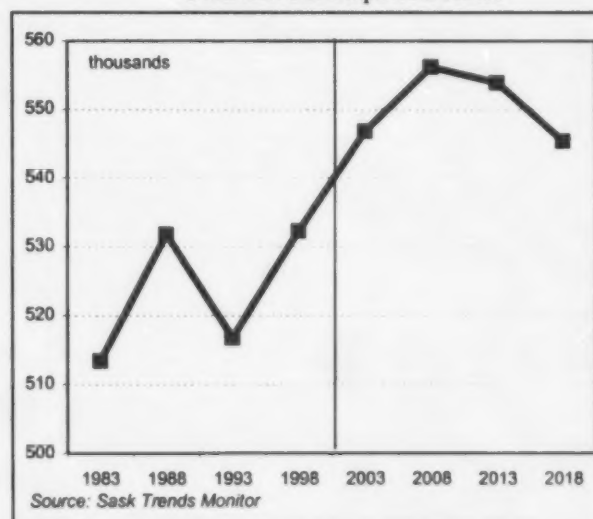
The participation rates for the Indian and non-Indian populations are significantly different so they are projected separately — the non-Indian rates in Section 3.2.2 and the Indian rates in Section 3.2.3.

Table 3.5 1998 Labour Force Participation Rates in Saskatchewan

	Labour Force Participation Rates		
	Men	Women	Both genders
15-19	56%	49%	53%
20-24	83%	71%	77%
25-29	92%	79%	85%
30-34	93%	78%	86%
35-44	95%	84%	90%
45-54	91%	81%	86%
55-59	79%	64%	72%
60-64	62%	40%	51%
65-69	38%	11%	24%
70 or older	15%	2%	7%

Source: Statistics Canada Labour Force Survey

Figure 3.11 Potential Labour Force with Constant Participation Rates



3.2.2 Non-Indian Participation Rates

One of the most challenging aspects of forecasting the available labour force is forecasting the participation rates for the population. Overall participation rates are relatively stable but there are significant historical trends in specific age and sex cohorts that, if they continue, will significantly affect the size of the labour force.

The current and historical participation rates are derived from Statistics Canada's *Labour Force Survey* so they exclude the population living on Indian Reserves but they include Registered Indians living off-Reserve. The participation rates for the Indian population are lower than for the non-Indian population so the actual non-Indian participation rates would be somewhat lower than those published in the LFS. The difference will be negligible, however, so these rates from the LFS can be considered as applying to the non-Indian Saskatchewan population¹⁸.

Appendix 3 contains actual and forecasted non-Indian participation rates by age and sex for the 1976 to 2018 period. No hard and fast rules were used to forecast the rates but the key assumption is that the general aging of the population will lead to a "tight" labour market. That is, skilled workers will be in short supply in the province. There is ample evidence that such a tight labour market may already exist:

- Saskatchewan's unemployment rate remains low and the participation rate in the 55 to 64 age group is not declining;
- a general shortage in nursing staff became evident in 1998, largely because many employees were retiring from the profession at age 55; and
- many business surveys report that employers have difficulty finding skilled workers.

But the key reason is the fact that the labour force will begin to decline in the next ten years unless participation rates increase (see Figure 3.11).

Other assumptions made in projecting the labour force participation rates are listed below.

- With a tight labour market, participation rates will tend to rise to their theoretical maximums. For most age and sex combinations this was taken to be the maximum that they have achieved over the past 20 years.
- Participation rates among youth (15 to 24) will remain low because of high school and post-secondary attendance.
- The general increase in educational levels will enable an upward trend in participation rates.
- Participation rates among women will approach those among men in the corresponding age group although a differential will remain for women in the child bearing age groups.
- Participation rates for men near and past the retirement age of 65 will continue to decline.

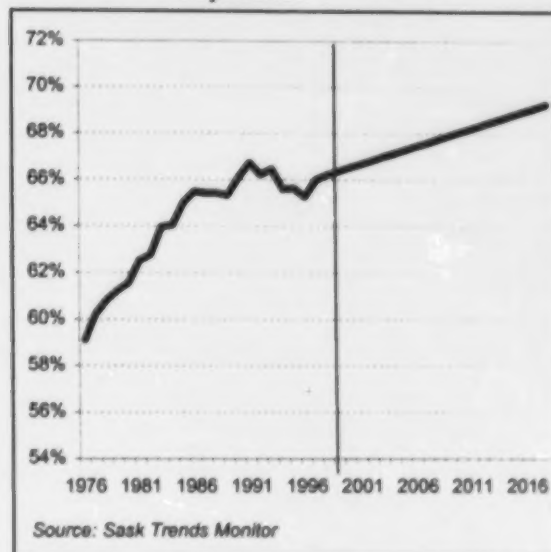
¹⁸

In the 1996 census, which includes the entire population, the labour force participation rate for the province was 67.3%. The participation rate for the non-Indian population was 68.7% compared with 68.1% for the population that would be measured by the LFS, the Indian and non-Indian population off Reserve.

Note that these are "potential" participation rates. If the overall demand for labour in the economy is insufficient to allow the participation rates to rise, either they will be lower or the unemployment rate will increase.

The net effect of these age and sex specific assumptions is an overall increase in the participation rate. In every age/sex cohort except older males, the forecast is for an increase in participation rates. The actual observed participation rates will, however, decline over the next twenty years because more of the population will move into age groups with lower participation rates. Figure 3.12 shows how the rates have changed and how they are projected to change using an "age adjusted" participation rate to show the underlying rates. This is done by applying the age and sex specific rates to a fixed population, the 1998 Saskatchewan population.

Figure 3.12 "Age Adjusted" Participation Rate Projection, Non-Indian Population



Compared with the scenario of constant participation rates, the increased participation rates have an effect on the overall size of the non-Indian labour force. Table 3.6 and Figure 3.13 show the net effect over the next twenty years.

The higher participation rates add a full 15,000 to 20,000 persons to the potential non-Indian labour force after 1993 but the increase is still not sufficient to prevent a decline from occurring in the last half of the twenty year forecast period.

The age and sex detail for the non-Indian labour force under both the constant participation rate scenario and the increasing participation rate scenario are included in Appendix 2.

The increasing participation rates that were assumed in the calculation of these figures are particularly marked among women. There is another population subgroup however, namely the Aboriginal population, that

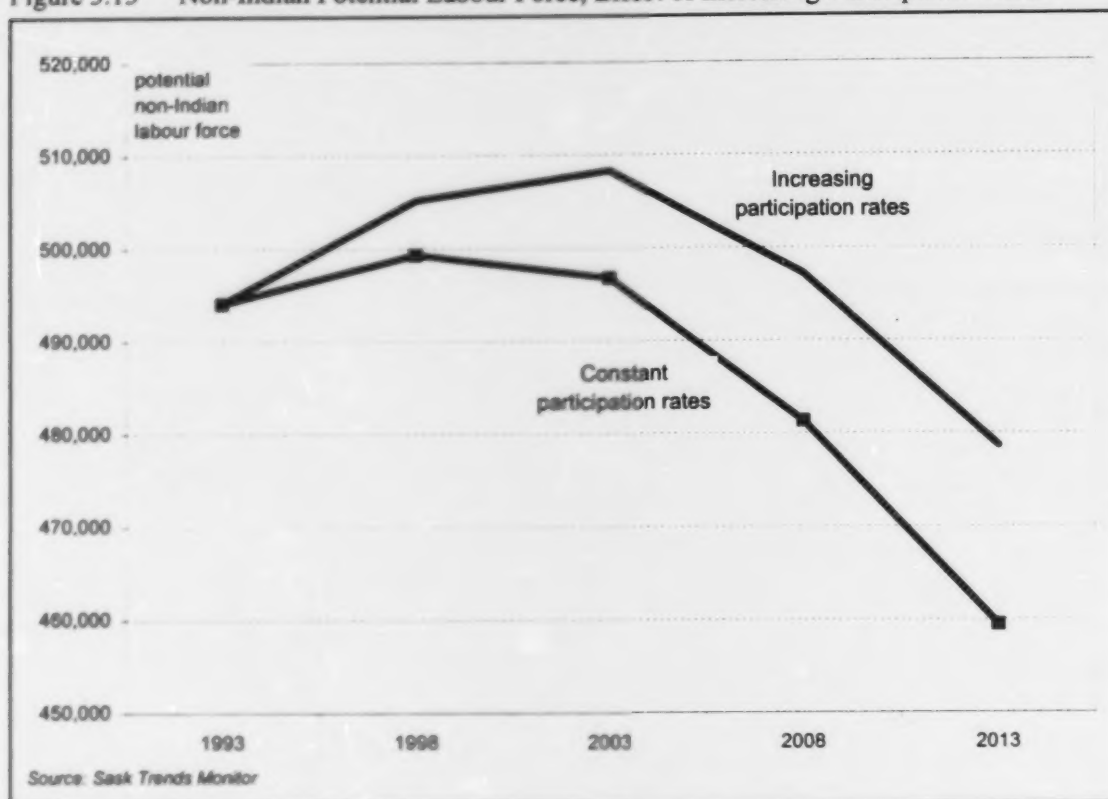
Table 3.6 Non-Indian Labour Force With Constant and Increasing Participation Rates

	Potential Non-Indian Labour Force	
	Constant participation rates	Increasing participation rates
1998	494,064	494,064
2003	499,323	505,145
2008	496,783	508,296
2013	481,290	497,195
2018	459,425	478,628

Source: Sask Trends Monitor

is significantly under-represented in the labour market. An increase in participation rates in this growing component of the population can also be expected over the next twenty years. This is the subject of the next section.

Figure 3.13 Non-Indian Potential Labour Force, Effect of Increasing Participation Rates



3.2.3 Indian Participation Rates

Participation rates for the Indian population¹⁹ are more difficult to forecast because there are limited age-specific rates published and no historical data to establish trends. Table 3.7 shows the available data from the 1996 Census. The Indian rates are generally about two thirds of the non-Indian rates — 44% compared with 67% for the general population in 1996 — although the differential is greater among those 15 to 24 — 28% compared with 65%.

The forecast of the Indian labour force requires detailed age specific rates so the 1996 rates were used to establish age specific rates in 1998. The first step was to calculate the ratio between the Indian and non-Indian rates for 1996. This was done separately for the four age-sex cohorts in Table 3.7. These ratios were then applied to the 1998 non-Indian rates to arrive at estimates for the participation rates in each age-sex cohort. In effect, this calculation assumes that:

- i) there has been no improvement in Indian participation rates relative to non-Indian rates over the two years; and
- ii) the age-sex pattern of participation in the Indian population, while lower overall, is the same as the pattern in the non-Indian population.

Both of these assumptions are reasonable although the latter is more questionable than the former.

Figure 3.14 shows the net effect of these calculations.

The Indian labour force participation rates are expected to improve over the next twenty years but the degree of the improvement is difficult to estimate. There has been progress in educational levels for the Indian population so this should naturally lead to higher participation rates over the short term. On the other hand, the twenty year forecast period is probably not long enough to completely close the gap between the Indian and non-Indian rates.

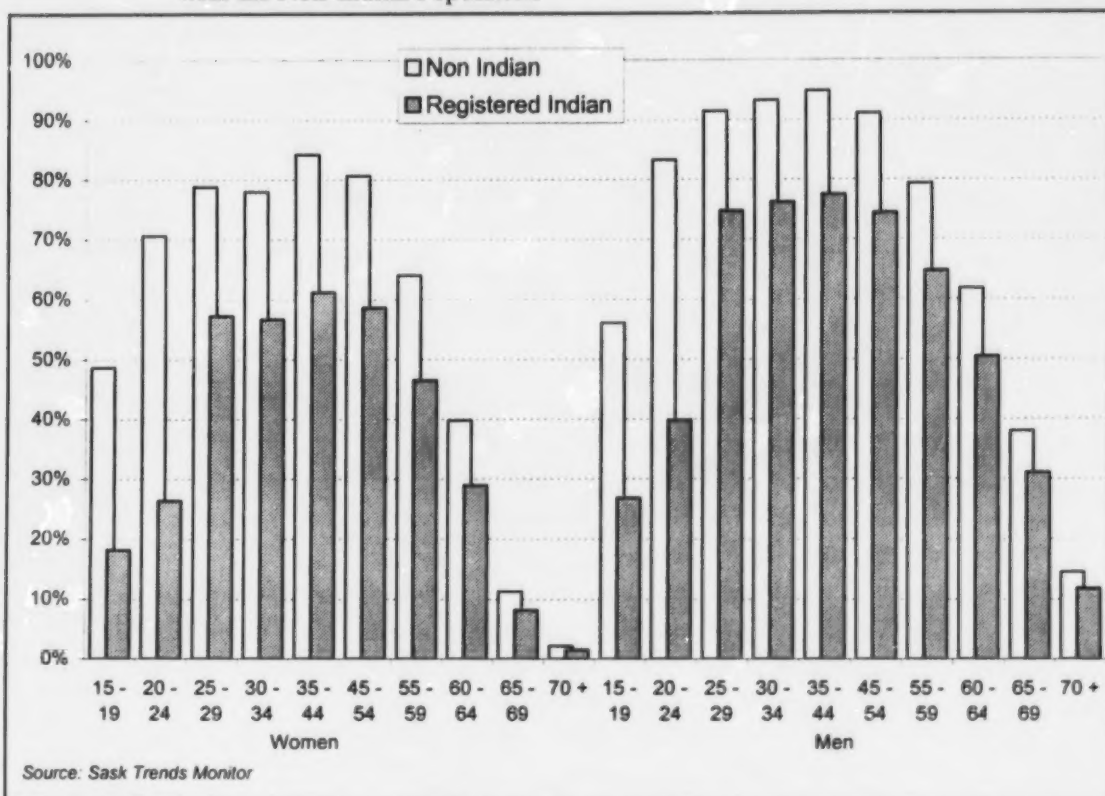
Table 3.7 Labour Force Participation Rates, Registered Indian Population, 1996

Sex	Age group	1996
Men	15 to 24	32.8%
	25 and older	62.4%
	All ages	52.4%
Women	15 to 24	22.8%
	25 and older	43.5%
	All ages	37.1%
Both genders, all ages		44.1%

Source: Special Tabulation from the 1996 Statistics Canada Census

¹⁹ The Registered Indian population, rather than the Aboriginal population, is the subject of this section because we do not have the necessary population forecast for the general Aboriginal population.

Figure 3.14 Assumed Participation Rates in 1998, Registered Indian Population Compared with the Non-Indian Population



To estimate the participation rates into the future, the participation rate gap between non-Indian and Indian rates was calculated for each individual age-sex cohort. The degree to which this gap was closed over the course of the twenty year forecast period was assumed to be as follows:

- ▶ the gap was assumed to close completely for both sexes 15 to 19 years of age (currently unborn);
- ▶ 85% of the gap closes for those 20 to 24 years of age (currently 0 to 4 years of age);
- ▶ 70% of the gap closes for those 25 to 29 years of age (currently 5 to 9 years of age);
- ▶ 55% of the gap closes for those 30 to 34 years of age (currently 10 to 14 years of age);
- ▶ and so on until we reach those 60 years of age and older for which the gap remains unchanged.

For example, among 30 to 34 year old males the 1998 participation rate for the Saskatchewan population is 93% whereas the estimated rate for First Nation members is 76% so there is a gap of 17%. The projection assumes that over the course of 20 years, 55% of the gap will be closed so that the Indian participation rate will increase gradually from 76% to 86%.

These assumptions effectively assume that over the course of the next twenty years, new Indian labour force entrants will approach the non-Indian participation rates, taken as the 1998 general

labour force participation rates in Saskatchewan²⁰. Figure 3.15 shows that the forecasted rates are quite optimistic; over the course of a generation, the rates come close to complete parity in participation rates.

Indian Labour Force

The three scenarios for the Indian participation rates can now be applied to the population forecast from Section 3.1.2. The results are shown in Table 3.8 and in Figure 3.16.

The Indian labour force will increase even with no change in participation rates because of the growing size of the population in the labour force age group. With constant participation rates, the size of the potential labour force increases by 14,000 over the next ten years, 33,000 over the next twenty years. With the forecasted increase in participation rates, the size of the labour force increases even more quickly, growing by 21,000 over the next ten years and almost 50,000 over twenty years.

Figure 3.15 Three Scenarios for Participation Rates in the Registered Indian Population

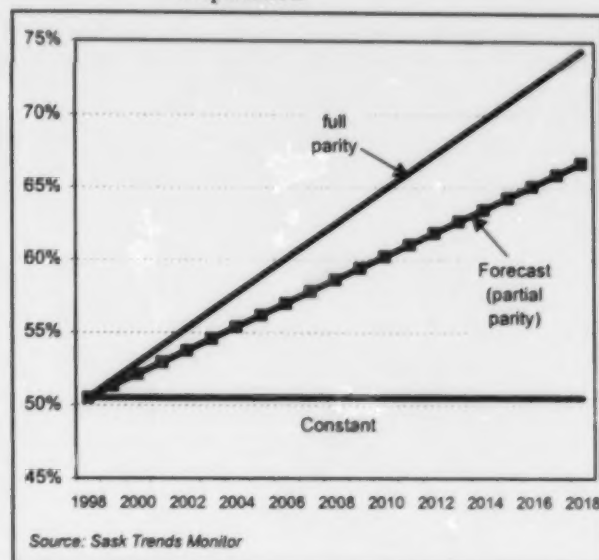


Table 3.8 Registered Indian Labour Force with Various Participation Rate Scenarios

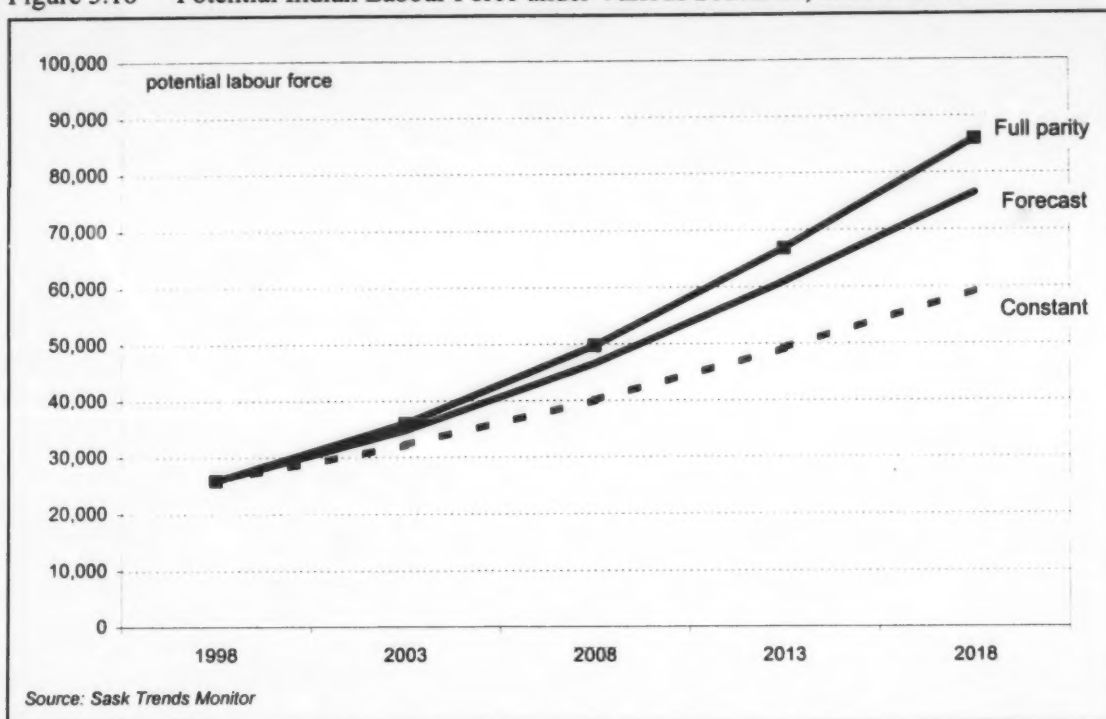
	Constant participation rates	Forecast (partial parity)	Full parity
1998	25,896	25,896	25,896
2003	32,167	34,753	35,997
2008	39,962	46,542	49,680
2013	49,097	60,843	66,721
2018	59,186	76,422	85,936

Source: Sask Trends Monitor

²⁰

Note that the general participation rates are forecast to increase over the course of the projection so "full parity" would actually mean that Indian participation rates would exceed the 1998 levels.

Figure 3.16 Potential Indian Labour Force under Various Scenarios, 1998 to 2018



3.3 Labour Force Supply Forecast

As with the population forecast, there are several possible scenarios for Indian and non-Indian participation rates. Table 3.9 shows the size of the Indian and non-Indian labour force for each combination of scenarios. As a reference, Figure 3.17 shows the size of the potential labour force if participation rates for both the Indian and non-Indian populations remain at their current level. In this case, the overall size of the potential labour force increases until 2008 and then begins to decline.

In the author's view, the most probable combination of scenarios has increasing participation rates for the non-Indian population and the "partial parity" rates for the Registered Indian population. In this combination of circumstances:

- ▶ the non-Indian labour force peaks in 2008 and then begins to decline rapidly;
- ▶ with the forecasted increase in Indian participation rates, the total labour force continues to grow to 2013 and then begins to level off (see Figure 3.18).

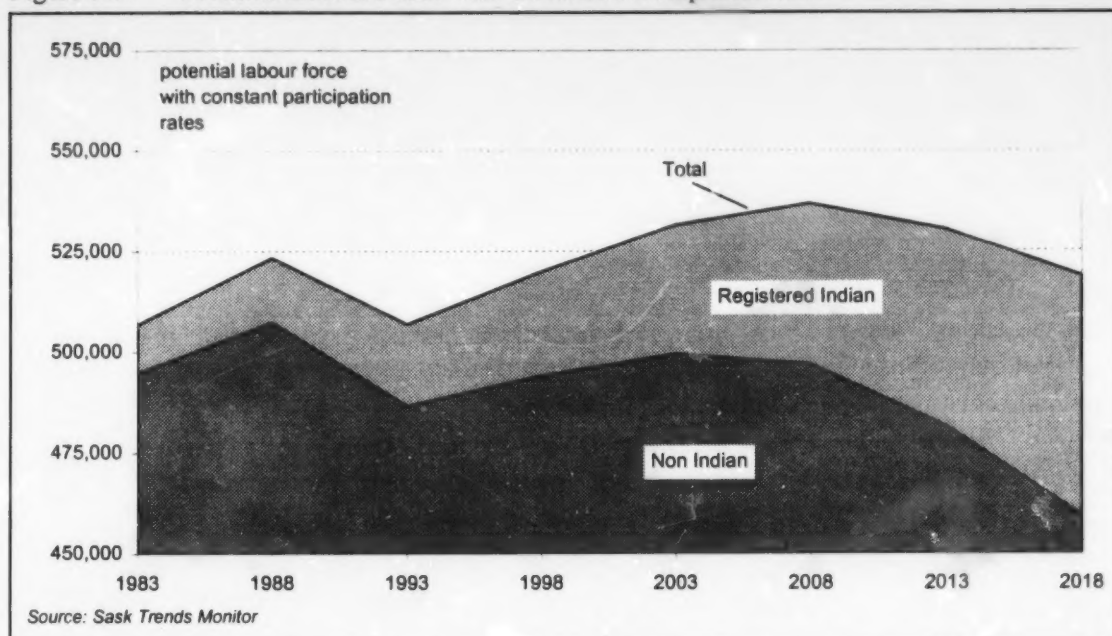
Table 3.9 Potential Labour Force, Various Scenarios

		1998	Projected			
			2003	2008	2013	2018
Non-Indian Labour Force	Constant participation rates	494,064	499,323	496,783	481,290	459,425
	Increasing participation rates	494,064	505,145	508,296	497,195	478,628
Indian Labour Force	Constant participation rates	25,896	32,167	39,962	49,097	59,186
	Forecast	25,896	34,753	46,542	60,843	76,422
	Full parity	25,896	35,997	49,680	66,721	85,936
Total Labour Force	Constant participation rates and constant Indian participation rates	519,960	531,490	536,745	530,387	518,611
	Constant participation rates and forecasted Indian participation rates	519,960	534,076	543,325	542,133	535,847
	Constant participation rates and full parity of Indian participation rates	519,960	535,320	546,463	548,011	545,361
	Increasing participation rates and constant Indian participation rates	519,960	537,312	548,258	546,292	537,814
	Increasing participation rates and forecasted Indian participation rates	519,960	539,898	554,838	558,038	555,050
	Increasing participation rates and full parity of Indian participation rates	519,960	541,142	557,976	563,916	564,564

Note: Bolded lines are those that are, in the author's opinion, the most probable.

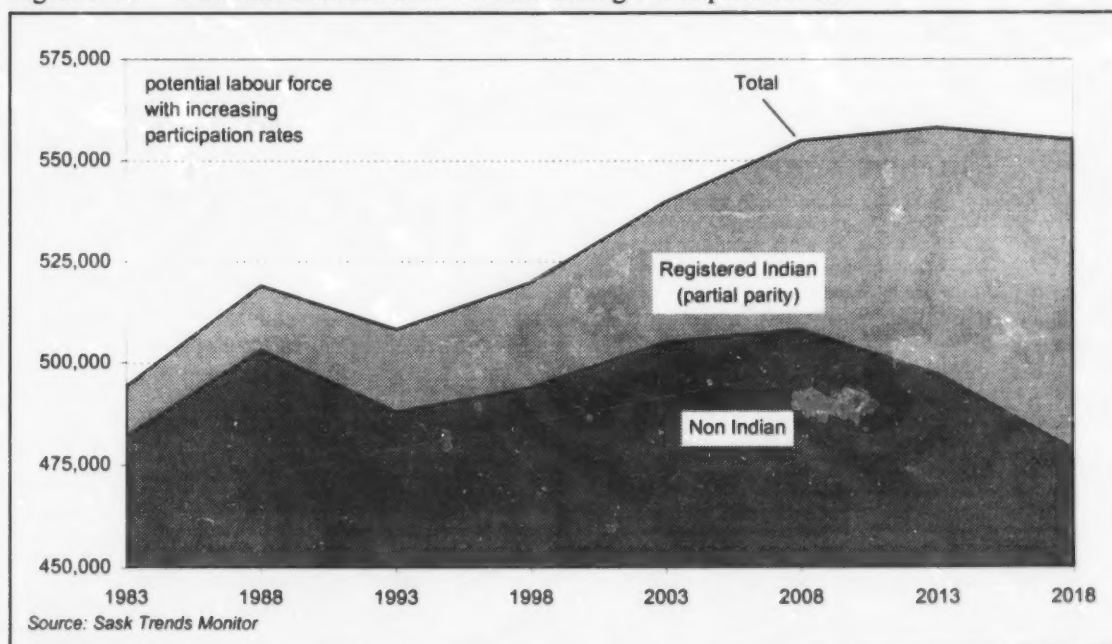
The underlying population assumption is five-year migration pattern for the total population, ten-year migration pattern for the Indian population.

Figure 3.17 Potential Labour Force with Constant Participation Rates



Figures 3.17 and 3.18 also show the effect of increasing participation rates among the Indian population. The Indian labour force in 1998 is estimated at 5% of the total provincial labour force. Even with constant participation rates, that proportion will rise to 7% in 2008 and 11% in 2018 by virtue of the population growth alone. With the forecasted improvement in participation

Figure 3.18 Potential Labour Force with Increasing Participation Rates



rates, the proportion increases to 8% in 2008 and 14% in 2018.

Under the forecast scenario, the labour force in 2013 will look substantially different from the one in 1998.

Figure 3.19 shows that virtually all of the labour force growth between 1998 and 2013 will occur in the Indian labour force. Over the fifteen years, the Registered Indian labour force will increase from 5% of the total to 11%.

Figure 3.20 shows that there will be changes in the gender mix of labour force participants although they are relatively minor. Over the fifteen years, women will increase from 44% to 46% of the potential labour force.

The most important change will be in the age structure (see Figure 3.21). There are no substantial differences projected for the youngest (15 to 24) and oldest (65 and older) age groups. As a share of the total labour force, those 15 to 24 years of age will move from 18% to 17% over the fifteen years while the number of labour force members 65 or older is projected to remain at 3% of the total. The largest changes are in the middle age groups. Over the fifteen years, there is a drop of 21,000 labour force participants in the 25 to 44 age group and a 58,000 increase in the number in the 45 to 64 age group. As a percentage of the total, those 45 to 64 years of age will move from 29% of the total to 38% whereas those 25 to 44 years of age will move from 50% to 43%.

Figure 3.19 Comparison of Potential Labour Force, 1998 and 2013, by Indian Status

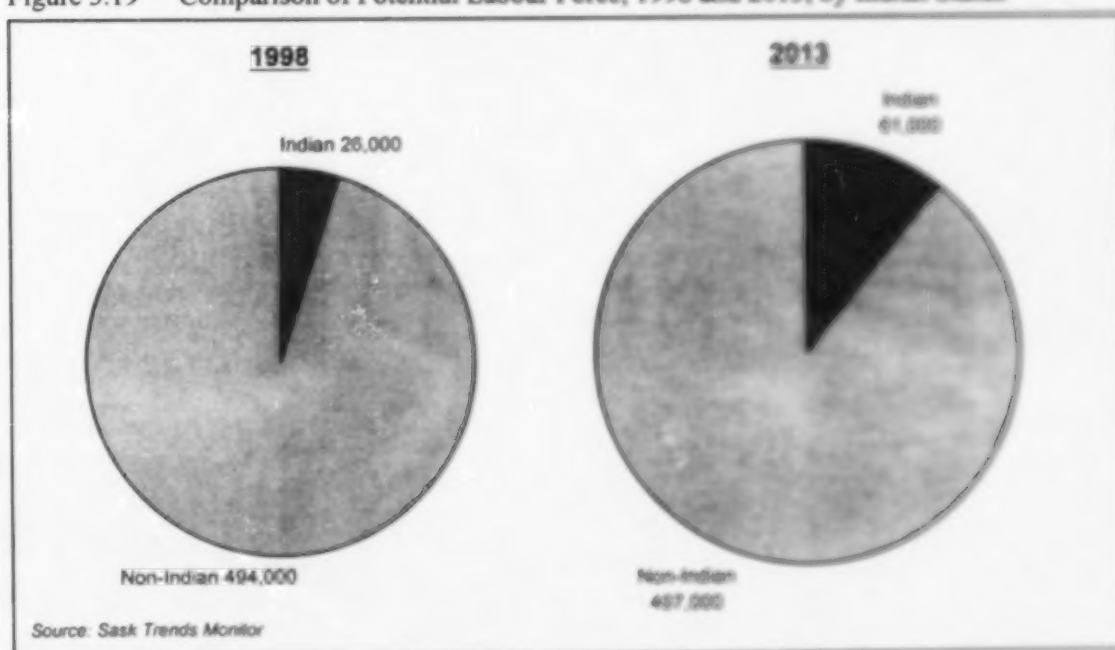


Figure 3.20 Comparison of Potential Labour Force, 1998 and 2013, by Gender

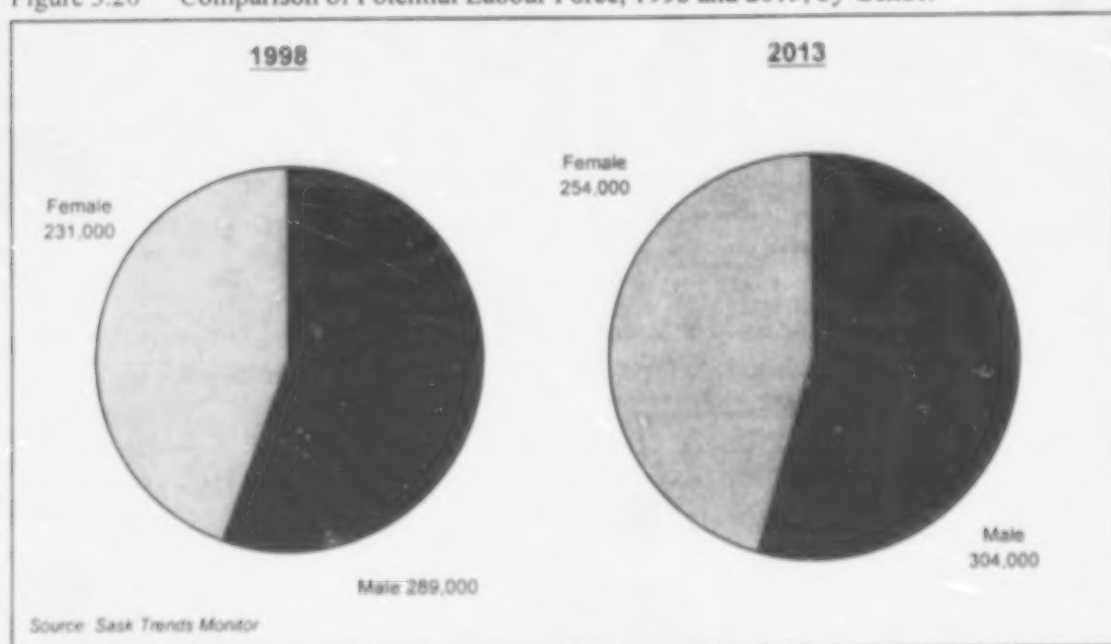
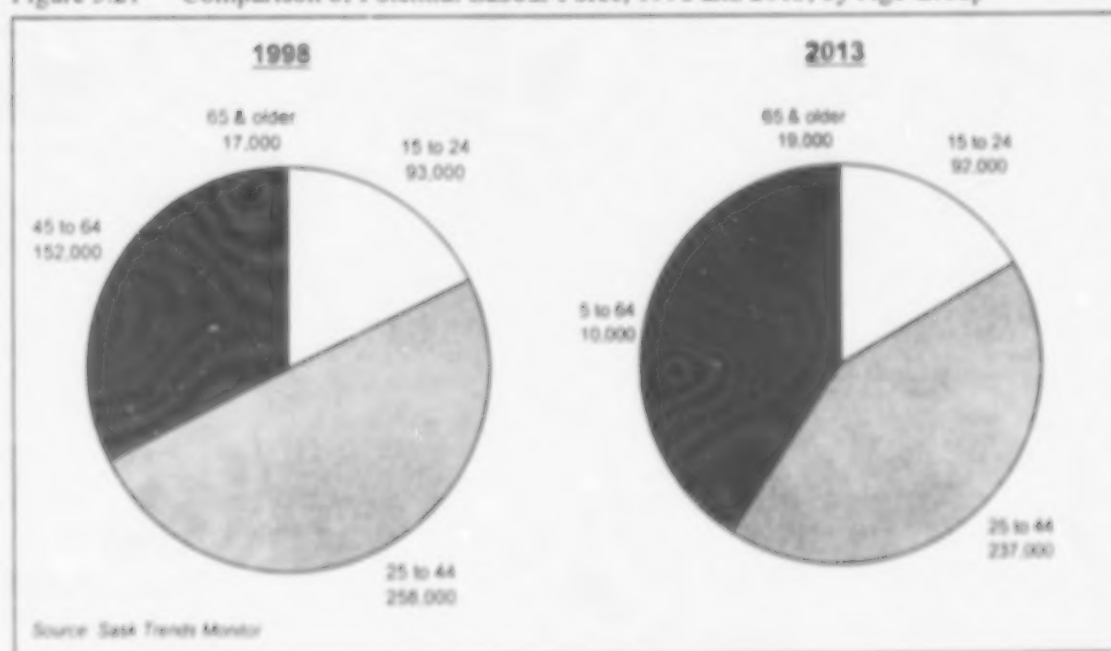


Figure 3.21 Comparison of Potential Labour Force, 1998 and 2013, by Age Group



4.0 IMPLICATIONS

In Section 3, we found that even with the increasing participation rates that are characteristic of a tight labour market, the size of the potential labour force will begin to decline in ten to fifteen years. The timing and the degree of "tightness" will be affected by a number of factors, not the least of which is the uncertainty surrounding the population and participation rate projections in this report. We do know, however, that a declining labour force will put an upper limit on employment for the province.

This section deals, in a qualitative way, with several of the questions that arise from that finding.

- What will be the impact on the overall size of the provincial economy and its potential for growth?
- What needs to be done to ensure that the participation rates in the Indian population can increase to the rates forecast in Section 3.2.3?
- Are there other population groups which could help alleviate the tight labour market?
- How will the impact be manifest over the short term?

4.1 Economic Impacts

The relationship between economic growth and employment is complex. The rate of employment growth in the economy can be considered as a function of two factors — the overall rate of growth in the economy (the output of goods and services) and the rate of productivity²¹ increase. Put another way:

$$\text{Economic growth} = \text{employment growth} + \text{labour productivity growth}$$

Economic growth is measured by using the provincial Gross Domestic Product (GDP) in constant dollars and the labour productivity is measured using GDP per employee hour worked.

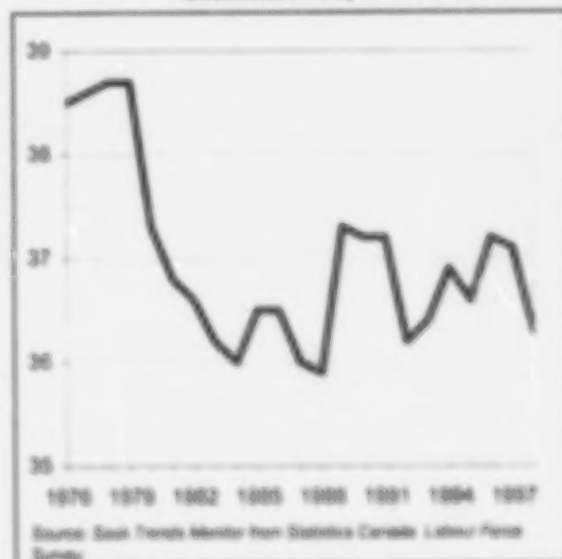
The hours of work per employee can safely be ignored in this calculation; Figure 4.1 shows that over the last fifteen years, the average hours per week have remained effectively constant.

The equation shows that, with the upper limit on employment imposed by a declining labour supply, economic growth can only come from increasing labour productivity. So productivity is the key to understanding the impact of the declining labour supply.

The historical relationship between GDP and employment in Saskatchewan is shown in Figure 4.2 and Table 4.1. There have been periods where employment declined more slowly than GDP (1986 to 1988, for example) indicating a declining productivity. These periods usually but not always correspond to years when the provincial economy was in recession. There are also periods where the reverse has occurred (1988 to 1991, for example) indicating increasing labour productivity. Over the recent term, the ten year average from 1988 to 1998 for example, much of Saskatchewan's GDP growth has come without an increase in employment.

Informetrica has developed an econometric model for the Canadian Occupational Projection System (COPS) scenarios. According to their forecasts for Saskatchewan, real GDP will grow by 2.0% per year from 1998 to 2013 and productivity growth will grow by 1.0% per year. This yields employment growth close to the twenty year average for the province because the

Figure 4.1 Average Hours Worked per Week per Employee (at all jobs), Saskatchewan, 1976 to 1998



²¹ The term "productivity" is used here to refer to the statistic "GDP per employee".

difference between GDP growth and productivity growth (1.0% in the *Informetric* projection and 0.9% averaged over the 1978 to 1998 period) effectively determines employment growth.

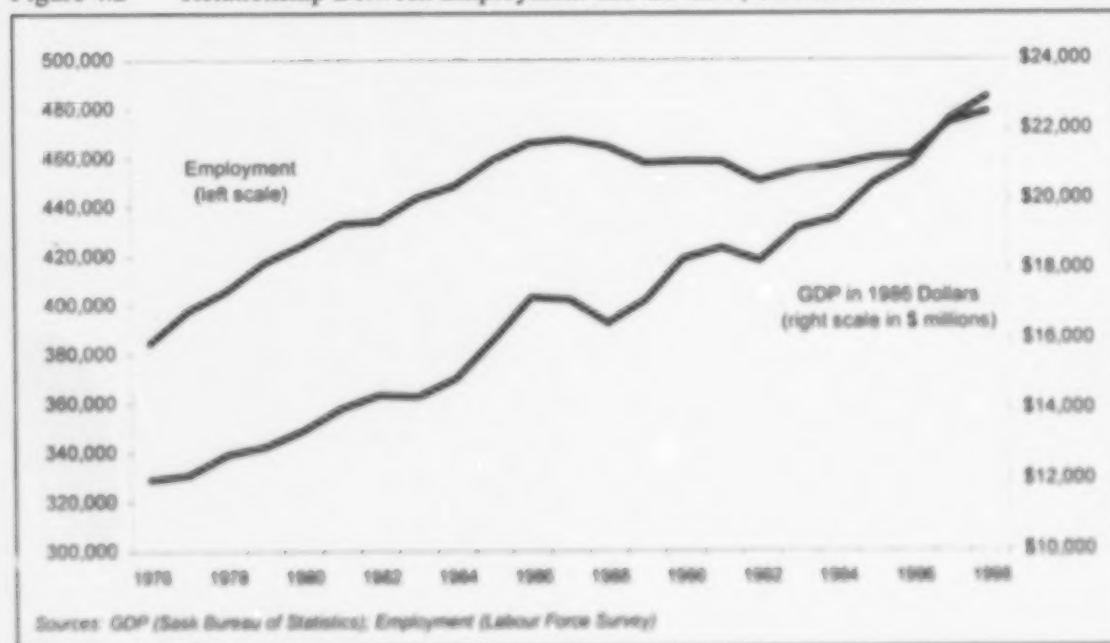
The provincial government has implicitly assumed a rate of employment and productivity growth in the forecasts contained in the 1999-2000 provincial budget. Over the five years from 1998 to 2003, real GDP is forecast to grow by 2.3% per year on average and employment is forecast to grow by 1.1% per year. This yields a 1.2% annual rate of increase in GDP per employee.

Table 4.1 Annual Rates of Increase, Employment, GDP, and Labour Productivity

Period	Years	Average annual increase		
		Employment	GDP (in 1986 \$)	GDP per employee
1976 to 1982	6	2.0%	3.1%	1.0%
1982 to 1983	1	2.2%	-0.3%	-2.4%
1983 to 1986	3	1.7%	6.1%	4.4%
1986 to 1988	2	-0.2%	-2.2%	-2.0%
1988 to 1991	3	-0.5%	4.2%	4.6%
1991 to 1992	1	-1.7%	-2.0%	-0.3%
1992 to 1998	6	1.0%	3.9%	2.8%
Ten year average, 1988 to 1998	10	0.3%	3.4%	3.1%
Twenty year average, 1978 to 1998	20	0.9%	3.0%	2.1%
Informetrics, 1998 to 2013	15	1.0%	2.0%	1.0%
Saskatchewan Budget, 1998-2003	5	1.1%	2.3%	1.2%

Source: Sask Trends Monitor

Figure 4.2 Relationship Between Employment and the GDP, Saskatchewan



A number of complex labour market mechanisms have an impact on the relationship between economic growth, productivity growth, and employment growth. These will intervene when labour demand begins to approach labour supply in ten to fifteen years.

1. The most obvious response will be a limiting of the growth rate in the economy; in effect the declining labour supply will have a dampening effect on economic growth.
2. The business sector can replace some of its labour inputs with capital (thereby increasing productivity) although the degree to which this can be done depends on the sector. The goods-producing part of the economy is more conducive to this kind of replacement than the service-producing part of the economy.
3. Migration into the province can occur if labour demand approaches labour supply, wage rates rise, and jobs become plentiful in the province. This depends on the availability of a) surplus labour in other parts of Canada, an unlikely circumstance because the same aging of the population will occur elsewhere, or b) increased international immigration to Saskatchewan, something which has not occurred for a number of years.
4. The tightening of the labour market will raise wage rates, thereby attracting more persons into the labour force or retaining those near retirement age. In particular, those in the 55 and older age group represent a particularly large pool of potential labour market participants and/or re-entrants.

The first of these possible market responses is a situation to be avoided and the other three are unlikely to completely solve the problem. So it would be prudent to anticipate a tightening of the labour market over the next ten to fifteen years and take reasonable steps to avoid it by ensuring that productivity (GDP per employee) grows. Without such growth, the declining labour force will limit economic growth.

In order for significantly higher productivity growth to occur, there will have to be a fundamental change in the nature of the provincial economy and its labour force. In particular, education levels would have to increase to at least the national average and there will have to be a switch from low productivity industries to high productivity industries.

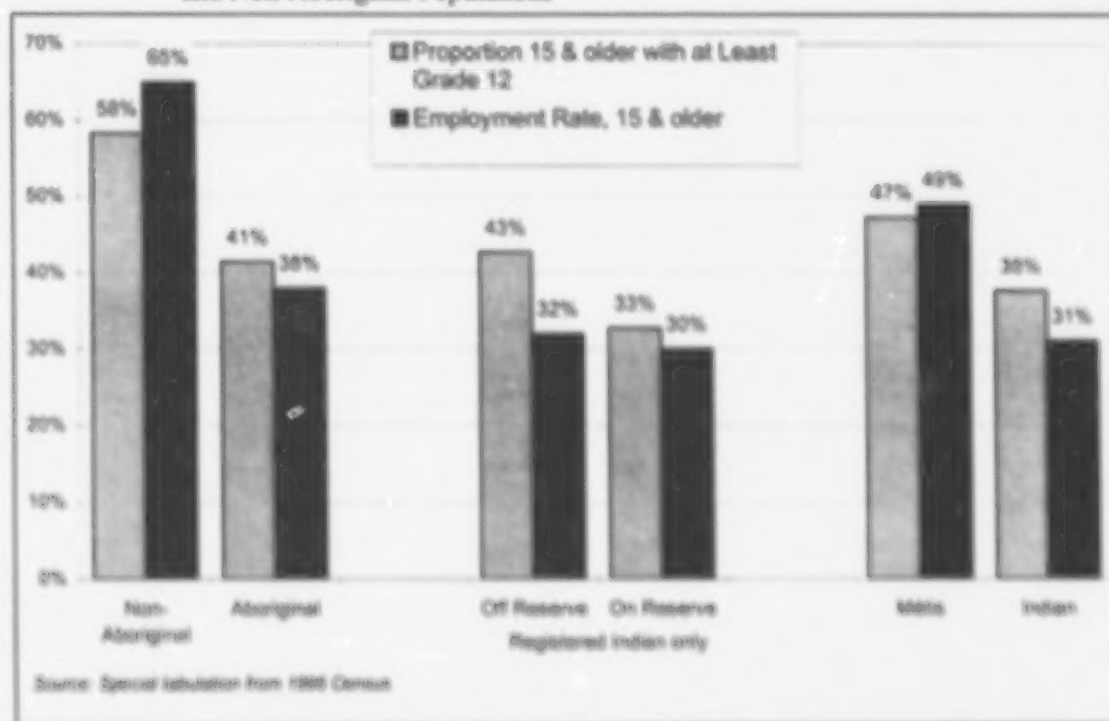
4.2 Increasing Indian Participation Rates

Section 3 shows that an improvement in the labour force participation rates for Aboriginal people in general and the Registered Indian population in particular would have a measurable impact on the size of the potential labour force, postponing the decline by several years. The goal of improving participation rates in the Aboriginal population is worthwhile pursuing even without the projected shortage because it would help achieve employment equity in the province.

The increase in the participation rates that led to this conclusion will not come automatically and the mechanism by which Aboriginal labour force participation rates can be increased is self-evident. In Section 2.6 of this report, the strong correlation between employment rates and educational attainment was demonstrated. Indeed, the current low participation rates for the Registered Indian population can be almost entirely attributed to the low levels of formal education.

Figure 4.3 shows formal education levels and employment rates for the Saskatchewan Aboriginal populations in 1996. Besides showing the strong relationship between levels of formal education and employment, the graph also shows that the greatest challenge in closing the gap between Aboriginal and non-Aboriginal education levels is among the Registered Indian population, particularly the population on Reserve.

Figure 4.3 Employment Rates and Formal Education Levels, Saskatchewan 1996, Aboriginal and Non-Aboriginal Populations

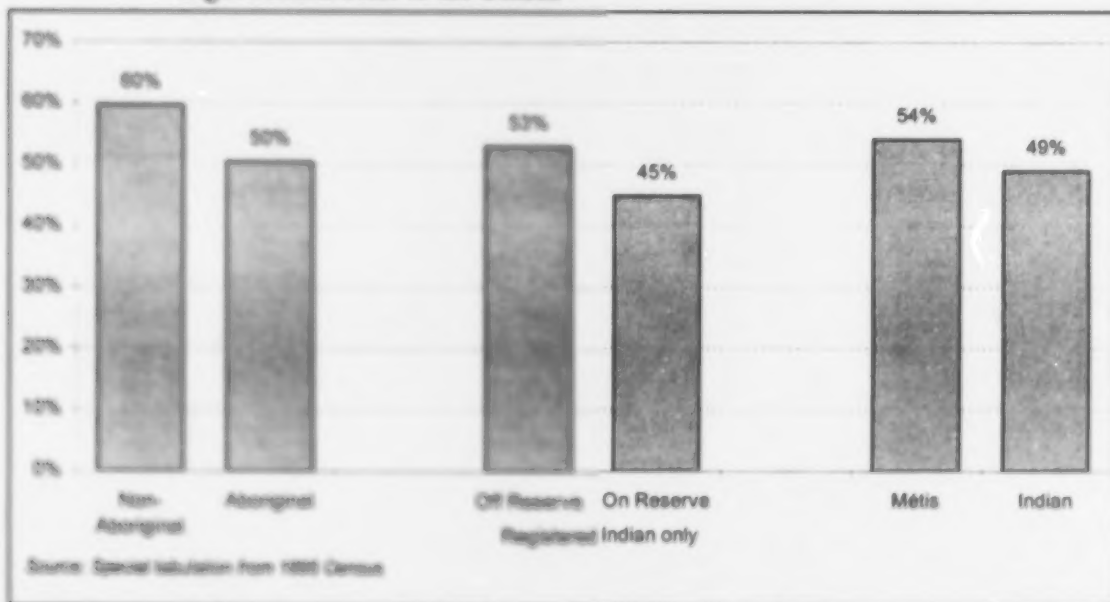


There has been an improvement in education levels for the Aboriginal population since the 1991 Census but it can best be described as modest. Using a slightly different definition for Aboriginal people in the 1991 Census, the proportion of the Aboriginal population with at least Grade 12 was 39% in 1991, compared with 41½% in 1996. At that rate, it would take 40 years to close the gap between the Aboriginal and non-Aboriginal populations.

The 1996 Census also shows that the Aboriginal population in the 15 to 24 age group are less likely to be in school than the non-Aboriginal population in the same age group (see Figure 4.4). Compared with 60% for the non-Aboriginal population, 50% of the Aboriginal population attended school on either a full-time or a part-time basis in the 1995-1996 school year.

This underscores the urgency of dealing with the labour supply issue. If the forecasted improvement in First Nation participation rates is to occur then the Indian population in the 20 to 34 age group in 2018 will have to approach the same participation rates as non-Indians in the same age group. At present, these individuals are either young children or teens; all are either in the K-12 school system or will be entering it within five years.

Figure 4.4 Proportion of the Population 15 to 24 Years of Age who Attended School in the Eight Months Prior to the Census



4.3 Increased Participation Rates Among Older Workers

Even with the projected increase in the participation rates among the Indian population, there is still a decline in the size of the potential labour force in the ten to fifteen years. Excluding immigration, the only conceivable source for other labour force participants is the large number of older persons in the province²². This section looks at the effect on the potential labour force with an increase in participation rates among older (45 years of age and older) residents.

Because the size of this age cohort is so large, a relatively modest increase in labour force participation rates has a measurable impact on the size of the aggregate labour force. To test the proposition that there are sufficient residents 45 and older to keep the potential labour force from declining, the following changes were made to the participation rates previously forecast in Section 3.2.2.

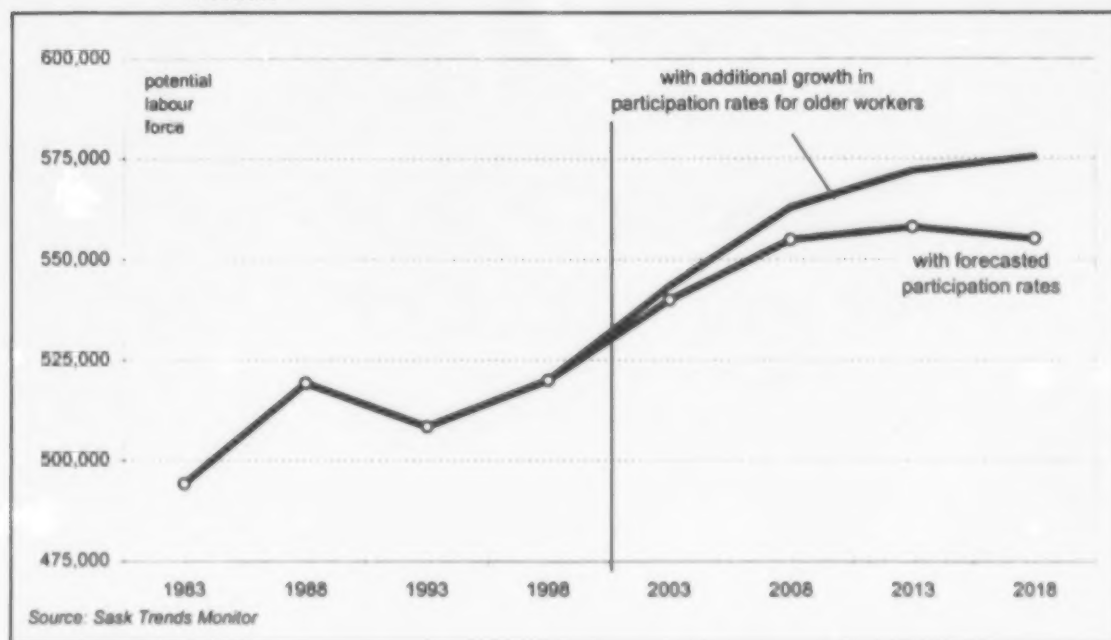
- ▶ The long term decline in the participation rates among men 45 and older was reversed so that the rates returned to the maximum they had achieved over the 1976 to 1998 period. For example, rather than a 75% participation rate for 55 to 59 year old men in 2013, the rate was increased to 88%. (The current rate is 79%.)
- ▶ Even more growth for women 50 and older was projected by increasing the participation rates by 10%. This resulted, for example, in the participation rates for 55 to 59 year old women increasing to 77% in 2013 rather than 70%. (The current rate is 64%.)

This is an extreme scenario because there is no indication that the rates can be increased to this extent without changes in the economics of working past “retirement” and changes in the attitudes of both older employees and potential employers. Even with these changes, the increases are still barely sufficient to keep the size of the potential labour force from dropping over the twenty years of the projection period (see Figure 4.5).

²²

There a number of other groups in the population with low participation rates. These include those with physical or mental challenges, fully employable social assistance recipients, involuntary part time workers, and those living in remote areas. For each of these groups, there is either an increase in employment implicitly assumed by virtue of the forecasted increase in participation rates or else the numbers are too small to significantly affect the size of the labour force.

Figure 4.5 Effect of Additional Growth in Labour Force Participation Rates for Older Workers



4.4 Short Term Skill Shortages

The tight labour market described in this report will not be manifest as a sudden inability of employers to find qualified candidates in any particular year. At the micro level, the labour market is in a constant state of flux with seasonal and non-seasonal spikes in supply and demand. Significant skill shortages occur when there is a mismatch within these normal fluctuations. The effect of the decline in the labour force supply is to move the supply and demand curves closer together, increasing the probability of these mismatches and shortages. The ability of the labour market to adjust to these skill shortages is compromised by the upper limit that the labour force supply places on employment.

So the tight labour market will not make itself known all at once but rather as an ever-more-frequent series of shortages in specific occupations. If the labour force participants are able to change jobs with changing demand — occupational mobility, in effect — then some of these effects can be mitigated. That kind of occupational mobility is also thought to be strongly correlated with education levels.

4.5 Issues that Remain Outstanding

This report argues that there is an unavoidable decline in the labour force supply coming to the province. There are a number of items arising from the analysis that would benefit from further research.

1. There is a great deal of uncertainty about whether the decline in the labour force supply will have a negative impact on the economy because we are unable to forecast employment demand in an economy that has a declining labour force supply. The structure of the provincial economy has changed and will continue to change albeit in unpredictable ways. Using econometric modelling, a more thorough analysis of the relationship between employment demand, labour productivity, and economic growth could be undertaken to estimate the impact.
2. On the supply side, we need to know more about the relationship between formal education levels and employment. Simple statistics showing the level of education by occupation do not seem to capture what many believe is a current skill shortage in the Saskatchewan labour market.
3. Retirement patterns have the potential to significantly affect the supply of workers. The so called "early" retirements did not permanently remove people from the labour force but this may change in the future. What is the role of older workers in a tight labour market? How can the increased participation rates discussed in Section 4.3 be achieved.
4. The not-for-profit (voluntary) sector is becoming an increasingly important part of the economy but is essentially unmeasured in the statistics. The impact of this sector on both the supply and demand side is unknown.
5. The analysis suggests that the tight labour market will be manifest as a series of occupation-specific shortages in the short term. An analysis of the supply at the occupation level may enable some of these shortages to be predicted. Steps to alleviate any occupation-specific shortages can then be undertaken.

Appendix 1
Saskatchewan Labour Market

Labour Market Characteristics

Tables:

Table 1: Basic Labour Market Characteristics
Table 2: Labour Market Indicators
Table 3: Employment and Employment Rates by Sex
Table 4: Employment by Age Group
Table 5: Employment Rates by Age Group
Table 6: Employment by Highest Level of Completed Education
Table 7: Employment Rate by Highest Level of Completed Education and Age Group
Table 8: Employment by Class of Worker and Industry Group
Table 9: Employment by Family Status
Table 10: Employment by Actual Weekly Hours of Work
Table 11: Number of Multiple Job Holders and Hours of Work
Table 12: Hours of Work in 1998, Saskatchewan
Table 13: Reasons for Part Time Work
Table 14: Employment by Job Tenure
Table 15: Job Tenure by Age Group
Table 16: Permanent and Temporary Employment
Table 17: Employment by Region
Table 18: Employment by Industry Group (000)
Table 19: Employment by Occupation Group (000)

Table 1: Basic Labour Market Characteristics
(thousands of persons)

	Population 15 & older	In the Labour Force				Labour Force Total	Canada Labour Force
		Employed FT	Employed PT	Employed	Unemployed		
Annual averages							
1976	659.2	326.3	58.2	384.6	15.7	400.3	10,530
1977	672.8	335.7	61.8	397.5	18.5	416.0	10,860
1978	683.1	338.5	67.3	405.7	20.8	426.5	11,265
1979	692.9	345.8	71.6	417.3	18.1	435.4	11,630
1980	702.5	348.8	75.8	424.5	19.6	444.1	11,983
1981	711.2	352.2	80.9	433.1	21.0	454.1	12,332
1982	720.9	349.8	84.3	434.1	28.8	462.9	12,398
1983	731.7	353.0	90.5	443.6	35.7	479.3	12,610
1984	742.5	351.1	97.4	448.6	38.7	487.3	12,853
1985	750.1	364.2	94.9	459.1	40.7	499.8	13,123
1986	753.6	367.6	98.6	466.2	38.9	505.2	13,378
1987	755.4	367.7	99.8	467.5	37.1	504.7	13,631
1988	752.1	364.0	100.8	464.8	37.6	502.3	13,901
1989	745.0	359.0	98.8	457.9	36.9	494.8	14,151
1990	736.8	356.4	102.0	458.5	34.5	493.0	14,329
1991	734.6	353.5	104.9	458.4	36.0	494.4	14,408
1992	736.4	345.6	104.9	450.5	40.3	490.8	14,482
1993	740.1	349.4	105.2	454.6	39.7	494.3	14,664
1994	745.0	357.1	99.6	456.7	34.5	491.2	14,832
1995	749.3	358.3	101.8	460.0	34.2	494.2	14,928
1996	752.9	363.4	97.7	461.2	32.5	493.7	15,145
1997	759.9	375.6	98.5	474.2	30.0	504.2	15,354
1998	763.8	382.7	95.9	478.6	30.0	508.6	15,632
Five year average annual growth rates:							
1978 to 1983	1.4%	0.8%	6.1%	1.8%	11.4%	2.4%	2.3%
1983 to 1988	0.6%	0.6%	2.2%	0.9%	1.0%	0.9%	2.0%
1988 to 1993	-1.6%	-4.0%	4.4%	-2.2%	5.6%	-1.6%	5.5%
1993 to 1998	0.6%	1.8%	-1.8%	1.0%	-5.4%	0.6%	1.3%
Twenty year average annual growth	0.6%	0.6%	1.8%	0.8%	1.8%	0.9%	1.7%

Table 2: Labour Market Indicators

	Saskatchewan				Contribution to	
	Participation Rate	Employment Rate	unemployment Rate	Percent Full time	Participation	Employment
Annual averages						
1976	60.7%	58.3%	3.9%	84.8%	61.2%	57.1%
1977	61.8%	59.1%	4.4%	84.5%	62.1%	57.2%
1978	62.4%	59.4%	4.5%	83.4%	63.1%	57.8%
1979	62.8%	60.2%	4.2%	82.9%	64.2%	58.2%
1980	63.2%	60.4%	4.4%	82.2%	64.8%	58.7%
1981	63.8%	60.9%	4.6%	81.3%	65.2%	59.4%
1982	64.2%	60.2%	6.2%	80.6%	64.7%	57.2%
1983	65.5%	60.6%	7.4%	79.6%	64.9%	57.1%
1984	65.6%	60.4%	7.9%	78.3%	65.3%	57.8%
1985	66.6%	61.2%	8.1%	79.3%	65.4%	58.2%
1986	67.0%	61.9%	7.7%	78.9%	66.2%	58.8%
1987	66.8%	61.9%	7.4%	78.7%	66.7%	58.9%
1988	66.8%	61.6%	7.5%	78.3%	67.2%	58.2%
1989	66.4%	61.5%	7.5%	78.4%	67.3%	58.4%
1990	66.9%	62.2%	7.0%	77.7%	67.3%	57.3%
1991	67.3%	62.4%	7.3%	77.1%	68.7%	58.2%
1992	66.6%	61.2%	8.2%	76.7%	68.3%	58.8%
1993	66.8%	61.4%	8.0%	76.5%	68.5%	58.2%
1994	65.9%	61.3%	7.0%	76.2%	68.3%	58.2%
1995	66.0%	61.4%	6.9%	77.8%	64.8%	58.2%
1996	65.6%	61.3%	6.8%	78.8%	64.3%	58.2%
1997	66.4%	62.4%	6.0%	79.2%	64.8%	58.3%
1998	66.6%	62.7%	5.9%	80.0%	65.1%	58.7%

Table 3: Employment and Employment Rates by Sex

	Saskatchewan				Canada	
	Employment (000)		Employment rate		Women:	
	Men	Women	Men	Women	Employment	Empl. Rate
Annual averages						
1976	250.2	134.3	75.4%	41.0%	3,610	41.7%
1977	257.2	140.3	76.0%	42.0%	3,740	42.3%
1978	259.5	146.2	75.6%	43.0%	3,952	43.8%
1979	264.4	152.9	76.1%	44.3%	4,174	45.3%
1980	268.1	156.5	76.2%	44.6%	4,389	46.7%
1981	268.4	164.7	75.5%	46.3%	4,595	48.0%
1982	264.2	169.9	73.3%	47.1%	4,544	46.7%
1983	265.9	177.6	72.8%	48.5%	4,635	47.0%
1984	268.1	180.5	72.3%	48.5%	4,787	47.9%
1985	269.3	189.8	72.0%	50.5%	4,978	49.2%
1986	268.5	197.7	71.5%	52.3%	5,162	50.3%
1987	270.4	197.2	71.9%	52.0%	5,347	51.5%
1988	265.2	199.5	71.0%	52.7%	5,572	52.9%
1989	260.0	197.9	70.3%	52.7%	5,730	53.7%
1990	258.0	200.5	70.7%	53.9%	5,845	54.0%
1991	255.0	203.4	70.2%	54.8%	5,812	52.8%
1992	247.5	202.9	68.0%	54.5%	5,811	52.0%
1993	250.1	204.5	68.4%	54.6%	5,889	51.7%
1994	254.4	202.3	69.1%	53.7%	6,002	51.9%
1995	255.2	204.8	68.9%	54.1%	6,109	52.1%
1996	253.5	207.7	68.3%	54.4%	6,197	52.1%
1997	262.3	211.9	70.1%	55.0%	6,292	52.2%
1998	262.6	216.0	69.8%	55.7%	6,524	53.4%
Five year average annual growth rates:						
1978 to 1983	0.5%	4.0%			3.2%	
1983 to 1988	-0.1%	2.4%			3.8%	
1988 to 1993	-5.7%	2.5%			5.7%	
1993 to 1998	1.0%	1.1%			2.1%	
Twenty year average annual growth	0.1%	2.0%			2.5%	

Table 4: Employment by Age Group
(Saskatchewan in thousands of persons)

	<u>15 to 24</u>	<u>25 to 34</u>	<u>35 to 44</u>	<u>45 to 54</u>	<u>55 to 64</u>	<u>65 plus</u>	<u>Total</u>
Annual averages							
1976	107.0	80.9	66.0	68.5	49.2	12.9	384.6
1977	108.3	88.6	67.9	68.2	50.5	14.0	397.5
1978	111.3	93.1	68.4	68.8	50.0	14.1	405.7
1979	115.5	101.2	70.4	68.1	49.3	12.9	417.3
1980	116.4	105.9	72.4	66.3	49.9	13.7	424.5
1981	112.8	113.5	76.6	67.1	49.8	13.3	433.1
1982	110.1	114.6	78.9	67.0	49.3	14.2	434.1
1983	107.0	119.6	84.0	67.8	50.2	14.9	443.6
1984	106.2	122.9	87.2	66.9	50.3	15.1	448.6
1985	106.7	128.7	91.1	67.3	50.1	15.2	459.1
1986	104.5	131.1	96.0	69.0	50.4	15.0	466.2
1987	97.8	134.9	100.0	68.1	50.0	16.7	467.5
1988	92.9	137.3	103.0	67.8	48.5	15.2	464.8
1989	85.9	133.3	107.3	69.3	46.9	15.2	457.9
1990	81.2	130.5	111.8	71.6	47.4	15.9	458.5
1991	78.7	126.3	116.5	72.6	47.0	17.3	458.4
1992	73.5	120.0	118.1	75.8	46.5	16.6	450.5
1993	75.1	115.0	121.5	79.3	46.2	17.5	454.6
1994	75.7	114.0	124.2	82.0	44.4	16.6	456.7
1995	77.4	109.3	126.7	84.6	43.9	18.2	460.0
1996	78.0	104.8	130.4	87.1	44.6	16.3	461.2
1997	82.4	105.2	134.1	92.3	43.6	16.5	474.2
1998	80.5	102.5	135.1	96.4	47.6	15.5	478.6
Five year average annual growth rates:							
1978 to 1983	-0.8%	5.1%	4.2%	-0.3%	0.1%	1.1%	1.8%
1983 to 1988	-2.8%	2.8%	4.2%	0.0%	-0.7%	0.4%	0.9%
1988 to 1993	-19.2%	-16.2%	18.0%	17.0%	-4.7%	15.1%	-2.2%
1993 to 1998	1.4%	-2.3%	2.1%	4.0%	0.6%	-1.2%	1.0%
Twenty year average annual growth	-1.6%	0.5%	3.5%	1.7%	-0.2%	0.8%	0.8%

Table 5: Employment Rates by Age Group

Annual averages	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 plus	Total
1976	61%	70%	74%	72%	56%	14%	58%
1977	60%	72%	75%	72%	57%	14%	59%
1978	61%	73%	75%	73%	56%	14%	59%
1979	63%	76%	77%	73%	55%	13%	60%
1980	64%	75%	77%	72%	55%	13%	60%
1981	62%	77%	80%	74%	55%	12%	61%
1982	62%	75%	79%	75%	55%	13%	60%
1983	60%	76%	80%	76%	56%	13%	61%
1984	60%	75%	80%	76%	56%	13%	60%
1985	61%	77%	80%	77%	56%	13%	61%
1986	62%	77%	81%	79%	57%	13%	62%
1987	60%	78%	82%	78%	57%	14%	62%
1988	60%	79%	82%	77%	55%	12%	62%
1989	59%	79%	83%	78%	54%	12%	62%
1990	59%	80%	84%	81%	56%	12%	62%
1991	58%	80%	85%	80%	56%	13%	62%
1992	55%	78%	84%	81%	56%	13%	61%
1993	56%	77%	84%	82%	56%	13%	61%
1994	56%	79%	84%	82%	55%	12%	61%
1995	56%	78%	84%	81%	54%	13%	61%
1996	56%	77%	85%	81%	55%	12%	61%
1997	59%	79%	86%	82%	54%	12%	62%
1998	57%	80%	86%	83%	59%	12%	63%

Table 6: Employment by Highest Level of Completed Education
(Saskatchewan in thousands of persons)

	Highest Level of Completed Education						Total
	0 - 8 years	Some high school	High school graduate	Some post-secondary	Post-secondary certificate or diploma	University degree	
Annual averages							
1976	85.0	194		30.1	45.2	30.3	384.6
1977	83.6	211		31.4	38.2	33.3	397.5
1978	81.0	218.1		32.7	41.3	32.6	405.7
1979	79.4	230.3		29.0	43.5	35.2	417.3
1980	71.4	234.7		32.8	46.6	39.0	424.5
1981	67.6	238.5		34.7	52.9	39.5	433.1
1982	62.2	237.3		39.5	55.1	40.1	434.1
1983	63.3	243.9		40.3	55.3	40.7	443.6
1984	62.9	240.2		43.0	57.9	44.6	448.6
1985	56.5	245.8		41.2	66.1	49.6	459.1
1986	54.9	247.6		45.5	67.7	50.5	466.2
1987	53.4	244.9		49.1	69.2	50.9	467.5
1988	48.1	246.8		45.6	71.7	52.6	464.8
1989	44.6	240.5		43.5	71.8	57.4	457.9
			break in series				
1990	38.0	102.9	113.2	40.4	114.5	49.4	458.4
1991	42.4	96.6	116.6	40.2	112.1	50.4	458.3
1992	35.9	93.5	112.1	38.8	120.1	50.0	450.4
1993	30.8	89.6	117.5	42.0	118.3	56.4	454.6
1994	30.2	89.0	108.7	41.7	130.0	57.2	456.8
1995	28.6	89.2	110.0	40.1	132.9	59.2	460.0
1996	26.2	84.5	109.7	46.7	130.5	63.5	461.1
1997	23.4	87.2	112.5	47.1	139.7	64.3	474.2
1998	24.3	79.9	110.1	51.3	147.5	65.5	478.6
Average annual growth, 1990-1998							
Saskatchewan	-5.4%	-3.1%	-0.3%	3.0%	3.2%	3.6%	0.5%
Canada	-5.7%	-3.3%	-0.4%	0.7%	4.1%	4.6%	1.1%

Table 7: Employment Rate by Highest Level of Completed Education and Age Group

	Highest Level of Completed Education						Total
	0 - 8 years	Some high school	High school graduate	Some post-secondary	Post-secondary certificate or diploma	University degree	
All ages							
1990	32%	55%	74%	66%	74%	83%	62%
1991	34%	53%	74%	68%	75%	82%	62%
1992	31%	52%	72%	65%	75%	81%	61%
1993	29%	50%	73%	67%	72%	81%	61%
1994	29%	50%	72%	66%	73%	83%	61%
1995	29%	50%	73%	63%	72%	82%	61%
1996	25%	49%	72%	66%	74%	82%	61%
1997	25%	49%	74%	66%	74%	83%	62%
1998	26%	48%	75%	67%	74%	81%	63%
15 to 24 years							
1990	31%	48%	71%	58%	81%	74%	59%
1991	30%	48%	70%	58%	81%	81%	58%
1992	27%	43%	66%	54%	80%	78%	55%
1993	30%	42%	68%	59%	79%	77%	56%
1994	27%	42%	68%	59%	80%	76%	56%
1995	28%	43%	71%	54%	82%	85%	57%
1996	26%	41%	73%	57%	83%	79%	57%
1997	21%	44%	78%	60%	81%	80%	59%
1998	27%	43%	75%	59%	78%	81%	57%
25 to 44 years							
1990	58%	73%	84%	81%	87%	88%	82%
1991	61%	74%	84%	83%	86%	89%	82%
1992	59%	73%	82%	76%	86%	88%	81%
1993	54%	71%	83%	79%	84%	89%	81%
1994	59%	71%	84%	78%	86%	90%	82%
1995	52%	73%	83%	76%	85%	90%	81%
1996	49%	72%	84%	77%	87%	89%	81%
1997	50%	73%	84%	80%	88%	89%	83%
1998	50%	72%	85%	80%	88%	89%	83%
45 & older							
1990	28%	48%	56%	49%	53%	73%	45%
1991	31%	45%	56%	55%	56%	68%	45%
1992	28%	45%	55%	56%	57%	67%	45%
1993	26%	44%	58%	56%	56%	67%	46%
1994	25%	43%	54%	59%	55%	73%	45%
1995	26%	41%	56%	54%	55%	72%	46%
1996	23%	41%	55%	59%	57%	73%	45%
1997	23%	40%	56%	52%	56%	75%	46%
1998	22%	41%	61%	58%	57%	70%	48%

Table 8: Employment by Class of Worker and Industry Group

	Saskatchewan Employment (000)						
	Employees		Incorporated, self-employed		Unincorp., self-employed		Unpaid Family
	Public sector	Private sector	With paid help	No paid help	With paid help	No paid help	
All industries							
1987	108.5	233.0	15.0	3.8	22.5	70.6	14.0
1988	104.6	239.4	17.6	4.0	21.3	67.8	10.0
1989	102.7	235.2	16.8	3.9	20.6	69.6	9.0
1990	103.2	231.9	15.9	3.0	19.0	74.4	11.2
1991	102.4	232.7	16.8	4.0	20.5	71.0	11.0
1992	109.2	226.1	14.5	3.3	20.2	66.7	10.4
1993	108.6	231.0	14.3	3.9	21.2	66.7	9.1
1994	103.1	240.0	15.7	3.3	21.1	65.8	7.8
1995	100.5	244.7	16.5	3.3	19.3	68.8	6.9
1996	102.3	242.2	17.0	4.6	19.8	69.8	5.4
1997	104.9	246.6	17.5	6.5	15.5	76.9	6.3
1998	103.7	248.5	16.5	9.3	15.8	78.5	6.3
Average annual growth, 1988-1998	-0.1%	0.4%	-0.6%	8.8%	-2.9%	1.5%	-4.5%
Excluding Agriculture							
1987	108.5	214.0	13.5	2.6	8.7	24.6	1.0
1988	104.6	224.9	15.7	2.4	8.8	26.3	1.0
1989	102.7	219.7	14.8	2.8	9.0	27.4	1.1
1990	103.2	215.7	14.4	2.4	8.3	27.6	1.3
1991	102.4	215.1	14.9	2.9	10.1	24.4	1.4
1992	109.2	210.5	12.9	2.2	9.4	27.9	1.2
1993	108.6	216.0	13.1	2.3	9.9	26.3	0.8
1994	103.1	227.4	14.0	2.3	10.9	29.2	0.9
1995	100.5	230.5	13.9	1.9	10.4	31.0	0.7
1996	102.3	227.9	14.7	2.9	10.6	32.2	0.7
1997	104.9	237.2	14.6	3.3	10.0	36.3	1.0
1998	103.7	239.4	13.8	4.4	10.5	35.2	0.4
Average annual growth, 1988-1998	-0.1%	0.6%	-1.3%	6.2%	1.8%	3.0%	-8.8%
Canada Excluding Agriculture							
1987	2,655	7,877	418	96	268	614	34
1988	2,660	8,208	467	97	270	650	29
1989	2,652	8,492	461	104	277	648	26
1990	2,671	8,479	479	117	278	690	27
1991	2,731	8,127	488	123	283	701	25
1992	2,768	8,006	481	134	273	737	24
1993	2,768	8,054	500	136	281	812	31
1994	2,748	8,305	475	154	304	872	25
1995	2,659	8,580	497	161	282	886	29
1996	2,633	8,643	492	181	290	977	29
1997	2,584	8,757	541	242	273	1,104	38
1998	2,598	9,077	513	236	281	1,172	32
Average annual growth, 1988-1998	-0.2%	1.0%	0.9%	9.3%	0.4%	6.1%	0.9%

Table 9: Employment by Family Status

Annual Averages	Saskatchewan Employment (000)					Employment Rates	
	Economic Family Members			Unattached	Total	Economic Family Adults	
	Head	Spouse	Child/Relative	Individuals		Head	Spouse
1976	184.9	87.1	65.7	47.0	384.7	79%	41%
1977	189.2	89.8	68.8	49.7	397.5	79%	42%
1978	190.4	92.9	68.7	53.7	405.7	79%	43%
1979	192.3	97.5	69.6	57.9	417.3	79%	45%
1980	196.7	100.4	70.6	56.8	424.5	79%	45%
1981	197.0	104.5	71.9	59.9	433.3	78%	47%
1982	196.7	109.1	67.6	60.6	434.0	76%	48%
1983	199.5	116.7	67.0	60.4	443.6	76%	50%
1984	199.0	119.8	69.8	59.9	448.5	75%	51%
1985	197.8	124.2	70.6	66.5	459.1	74%	53%
1986	199.8	129.2	68.7	68.6	466.3	74%	55%
1987	199.9	132.6	66.5	68.5	467.5	74%	57%
1988	198.3	135.5	63.5	67.4	464.7	73%	57%
1989	193.3	135.7	62.0	66.8	457.8	72%	58%
1990	194.0	140.3	60.0	64.2	458.5	72%	60%
1991	192.9	142.5	61.2	61.8	458.4	72%	62%
1992	188.4	144.0	57.9	60.2	450.5	71%	62%
1993	188.8	142.7	57.7	65.4	454.6	71%	62%
1994	189.8	142.8	60.2	63.9	456.7	71%	62%
1995	191.5	144.5	59.9	64.0	459.9	70%	62%
1996	188.3	147.1	62.2	63.6	461.2	69%	64%
1997	184.8	156.5	63.1	69.7	474.1	68%	68%
1998	187.6	154.2	64.5	72.2	478.5	69%	68%
Five year average annual growth rates:							
1978 to 1983	0.9%	4.7%	-0.5%	2.4%	1.8%		
1983 to 1988	-0.1%	3.0%	-1.1%	2.2%	0.9%		
1988 to 1993	-4.8%	5.3%	-9.1%	-3.0%	-2.2%		
1993 to 1998	-0.1%	1.6%	2.3%	2.0%	1.0%		
Twenty year average annual growth							
	-0.1%	2.6%	-0.3%	1.5%	0.8%		
Canada							
Five year average annual growth rates:							
1978 to 1983	0.3%	3.8%	0.7%	2.2%	1.5%		
1983 to 1988	1.5%	4.4%	3.2%	4.2%	2.9%		
1988 to 1993	-0.1%	2.0%	-1.9%	0.5%	0.3%		
1993 to 1998	0.7%	3.1%	2.0%	2.7%	1.9%		
Twenty year average annual growth							
	0.6%	3.3%	1.0%	2.4%	1.7%		

Table 10: Employment by Actual Weekly Hours of Work

Annual Averages	Saskatchewan Employment (000) at all Jobs					Total	Average
	Part Time		Full Time			Weekly	Weekly
	Less than 15	15 to 29.9	30 to 39.9	40 hours	More than 40	Hours (000)	Hours
1976	51.4	40.5	80.8	94.7	117.1	14,793	38.5
1977	55.0	40.2	77.5	104.5	120.4	15,325	38.6
1978	57.2	40.2	75.3	109.0	124.0	15,718	38.7
1979	60.4	42.4	74.0	111.2	129.4	16,130	38.7
1980	61.6	45.0	84.8	110.0	123.2	15,824	37.3
1981	63.1	50.4	95.3	103.6	120.7	15,942	36.8
1982	69.1	51.1	88.3	107.7	118.0	15,907	36.6
1983	71.0	53.2	93.1	106.1	120.1	16,037	36.2
1984	75.3	55.4	86.9	108.9	122.0	16,138	36.0
1985	71.6	55.9	92.2	112.1	127.3	16,770	36.5
1986	74.3	58.3	91.4	111.3	130.8	17,038	36.5
1987	73.4	59.4	100.1	108.1	126.5	16,822	36.0
1988	73.7	57.7	92.5	113.4	127.4	16,688	35.9
1989	71.3	55.3	75.2	118.3	137.8	17,089	37.3
1990	73.6	56.6	78.4	112.0	137.8	17,043	37.2
1991	72.4	58.9	85.4	103.7	137.9	17,038	37.2
1992	71.2	62.1	92.5	95.4	129.3	16,313	36.2
1993	74.7	60.7	86.2	97.7	135.3	16,535	36.4
1994	71.0	57.0	86.9	104.0	137.7	16,839	36.9
1995	68.9	61.2	89.8	103.2	136.7	16,855	36.6
1996	68.1	58.8	86.4	106.2	141.6	17,148	37.2
1997	70.8	62.5	90.0	102.7	148.3	17,582	37.1
1998	75.4	63.4	94.9	101.8	143.0	17,393	36.3
Five year average annual growth rates:							
1978 to 1983	4.4%	5.8%	4.3%	-0.5%	-0.6%	0.4%	-1.3%
1983 to 1988	0.7%	1.6%	-0.1%	1.3%	1.2%	0.8%	-0.2%
1988 to 1993	1.4%	5.2%	-6.8%	-13.8%	6.2%	-0.9%	1.4%
1993 to 1998	0.2%	0.9%	1.9%	0.8%	1.1%	1.0%	-0.1%
Twenty year average annual growth							
	1.4%	2.3%	1.2%	-0.3%	0.7%	0.5%	-0.3%
Canada							
Five year average annual growth rates							
1978 to 1983	4.4%	4.6%	2.7%	-1.4%	0.9%	0.8%	-0.6%
1983 to 1988	1.7%	3.2%	0.9%	2.7%	6.0%	3.3%	0.4%
1988 to 1993	1.8%	2.9%	0.9%	-1.5%	-0.5%	-0.2%	-0.5%
1993 to 1998	1.8%	2.2%	1.5%	0.6%	3.6%	2.0%	0.1%
Twenty year average annual growth							
	2.4%	3.2%	1.5%	0.1%	2.4%	1.5%	-0.2%

Table 11: Number of Multiple Job Holders and Hours of Work

	Multiple job holders				Canada multiple job holders	
	As percent of		Extra weekly hours worked		As percent of	
Annual averages	Number	employment	Aggregate	Per job holder	Number (000)	employment
1987	34,800	7.4%	460	13.2	510	4.1%
1988	36,100	7.8%	479	13.3	576	4.5%
1989	40,600	8.9%	553	13.6	602	4.6%
1990	42,200	9.2%	566	13.4	636	4.8%
1991	44,700	9.8%	612	13.7	616	4.8%
1992	45,500	10.1%	627	13.8	621	4.8%
1993	45,500	10.0%	605	13.3	657	5.0%
1994	41,400	9.1%	564	13.6	653	4.9%
1995	40,200	8.7%	547	13.6	659	4.9%
1996	41,700	9.0%	595	14.3	699	5.1%
1997	45,100	9.5%	642	14.2	723	5.2%
1998	43,200	9.0%	619	14.3	720	5.0%

Table 12: Hours of Work in 1998, Saskatchewan

Hours of work at all jobs	Hours of work at main job				Total
	Part time	Full time			
	Under 30	30 to 39	40 hours	41 or more	
Under 30	15%	...	...	...	15%
30 to 39	8%	3%	...	...	11%
40 hours	3%	1%	...	...	4%
41 or more	4%	18%	31%	17%	70%
Total	30%	23%	31%	17%	100%

Table 13: Reasons for Part Time Work

Annual Averages	Part Time Employees (000)						Total
	Voluntary					Involuntary**	
	Personal or Family	Illness or Disability	Going to school	Did not want FT	Other Voluntary*		
1976	10.1	1.7	15.0	16.6	6.9	7.9	58.2
1977	8.8	1.3	15.4	18.0	7.1	11.2	61.8
1978	9.8	1.3	16.1	19.2	8.2	12.7	67.3
1979	9.0	1.2	17.0	20.2	10.6	13.6	71.6
1980	11.5	1.2	18.0	20.3	10.8	14.0	75.8
1981	11.0	1.1	18.7	24.3	11.5	14.3	80.9
1982	10.9	1.3	17.7	25.8	11.3	17.3	84.3
1983	12.3	1.4	17.3	26.0	11.8	21.7	90.5
1984	10.8	1.3	17.8	28.4	16.5	22.6	97.4
1985	11.9	1.3	18.3	26.2	15.0	22.2	94.9
1986	12.2	1.3	19.2	26.3	14.7	24.9	98.6
1987	11.6	1.5	19.1	24.7	17.0	25.9	99.8
1988	11.1	0.7	19.6	26.2	16.6	26.6	100.8
1989	8.6	1.1	18.9	25.2	18.2	26.8	98.8
1990	7.9	0.8	20.2	27.3	18.3	27.5	102.0
1991	6.5	1.1	21.2	25.9	17.6	32.6	104.9
1992	8.4	1.1	20.0	23.8	16.2	35.4	104.9
1993	8.8	1.1	20.5	20.5	15.5	38.8	105.2
1994	7.6	1.4	20.5	20.7	12.7	36.7	99.6
1995	6.9	1.5	20.3	23.9	13.6	35.6	101.8
1996	break in series						
1997	17.1	2.8	22.9	27.6	2.5	25.6	98.5
1998	17.3	2.3	23.0	27.5	2.2	23.7	96.0

* prior to 1997 includes a "full time" job for which the hours per week are normally less than 30.

** prior to 1997 includes "other" reasons, whether voluntary or involuntary and multiple job holders who have full time hours from several part time jobs

Table 14: Employment by Job Tenure

	Employment (000) by Job Tenure (same employer)					Average tenure (years)	
	12 months or less	13 to 60 months	61 to 240 months	More than 20 years	Total	Sask	Canada
Annual Averages							
1976	96.7	117.3	102.3	68.2	384.6	9.2	7.0
1977	98.5	118.8	109.1	71.2	397.5	9.4	7.0
1978	93.1	130.0	111.9	70.7	405.7	9.3	7.1
1979	101.2	130.0	118.3	67.9	417.3	8.9	7.0
1980	106.9	128.7	123.3	65.7	424.5	8.8	7.0
1981	109.9	129.1	129.2	65.0	433.1	8.7	7.0
1982	105.2	136.6	129.7	62.6	434.1	8.6	7.2
1983	96.3	138.7	144.7	63.7	443.6	8.9	7.3
1984	104.2	128.9	149.8	65.6	448.6	9.1	7.4
1985	109.8	129.0	155.4	64.9	459.1	8.9	7.4
1986	113.7	124.1	163.4	65.2	466.2	8.9	7.3
1987	111.5	122.4	165.9	67.7	467.5	9.1	7.2
1988	113.2	123.7	163.3	64.6	464.8	9.0	7.2
1989	110.1	123.3	159.6	64.7	457.9	9.2	7.2
1990	109.2	121.4	161.4	66.5	458.5	9.4	7.2
1991	99.4	123.0	167.7	68.2	458.4	9.7	7.5
1992	99.3	121.0	161.2	69.1	450.5	9.8	7.7
1993	97.7	119.6	166.2	71.1	454.6	10.0	7.9
1994	100.9	114.7	170.9	70.1	456.7	9.8	7.9
1995	104.9	111.9	168.7	74.6	460.0	10.0	7.9
1996	101.3	117.9	167.5	74.6	461.2	9.8	8.0
1997	104.7	125.6	163.6	80.3	474.2	9.8	8.1
1998	102.8	126.8	163.4	85.6	478.6	10.1	8.1
Five year average annual growth rates:							
1978 to 1983	0.7%	1.3%	5.3%	-2.1%	1.8%	-0.9%	0.8%
1983 to 1988	3.3%	-2.3%	2.4%	0.3%	0.9%	0.3%	-0.4%
1988 to 1993	-13.7%	-3.3%	1.8%	10.1%	-2.2%	10.5%	9.6%
1993 to 1998	1.0%	1.2%	-0.3%	3.8%	1.0%	0.2%	0.4%
Twenty year average annual growth							
	0.5%	-0.1%	1.9%	1.0%	0.8%	0.4%	0.7%

Table 15: Job Tenure by Age Group

	Average Tenure (same employer) in Years				Canada All ages
	15 to 24 years	25 to 44 years	45 & older	All ages	
Annual Averages					
1976	1.8	6.9	17.8	9.2	7.0
1977	1.7	6.9	18.6	9.4	7.0
1978	1.9	6.8	18.6	9.3	7.1
1979	1.8	6.6	18.3	8.9	7.0
1980	1.8	6.3	18.4	8.8	7.0
1981	1.7	6.1	18.3	8.7	7.0
1982	1.8	6.1	18.0	8.6	7.2
1983	1.9	6.4	18.2	8.9	7.3
1984	1.9	6.5	18.9	9.1	7.4
1985	1.8	6.5	18.7	8.9	7.4
1986	1.7	6.6	18.5	8.9	7.3
1987	1.7	6.7	18.8	9.1	7.2
1988	1.6	6.7	18.5	9.0	7.2
1989	1.6	6.8	18.6	9.2	7.2
1990	1.5	7.0	18.4	9.4	7.2
1991	1.6	7.1	18.9	9.7	7.5
1992	1.5	7.2	18.6	9.8	7.7
1993	1.6	7.3	18.8	10.0	7.9
1994	1.6	7.5	18.0	9.8	7.9
1995	1.5	7.5	18.4	10.0	7.9
1996	1.4	7.5	17.9	9.8	8.0
1997	1.4	7.5	18.0	9.8	8.1
1998	1.4	7.6	18.1	10.1	8.1
Five year average annual growth rates:					
1978 to 1983	1.0%	-1.1%	-0.4%	-0.9%	
1983 to 1988	-4.2%	1.0%	0.2%	0.3%	
1988 to 1993	-1.1%	8.4%	1.9%	10.5%	
1993 to 1998	-1.7%	0.7%	-0.7%	0.2%	
Twenty year average annual growth					
	-1.3%	0.5%	-0.1%	0.4%	

Table 16: Permanent and Temporary Employment

	Saskatchewan			Canada		
	Number (000) in 1998	Change from 1997	1998 % of employees	Number (000) in 1998	Change from 1997	1998 % of employees
15 to 24 years						
Permanent	52.4	-5.6%	73%	1,413	1.1%	72%
<u>Temporary</u>	<u>19.1</u>	<u>4.9%</u>	<u>27%</u>	<u>537</u>	<u>13.8%</u>	<u>28%</u>
Total	71.5	-3.1%	100%	1,950	4.3%	100%
25 to 44 years						
Permanent	167.2	-1.3%	89%	5,904	1.9%	91%
<u>Temporary</u>	<u>19.9</u>	<u>11.8%</u>	<u>11%</u>	<u>603</u>	<u>1.5%</u>	<u>9%</u>
Total	187.1	-0.1%	100%	6,506	1.8%	100%
45 and older						
Permanent	85.3	2.4%	91%	3,091	4.3%	92%
<u>Temporary</u>	<u>8.3</u>	<u>15.3%</u>	<u>9%</u>	<u>255</u>	<u>9.7%</u>	<u>8%</u>
Total	93.6	3.4%	100%	3,345	4.7%	100%
All ages						
Permanent	304.9	-1.1%	87%	10,406	2.5%	88%
<u>Temporary</u>	<u>47.3</u>	<u>9.5%</u>	<u>13%</u>	<u>1,395</u>	<u>7.4%</u>	<u>12%</u>
Total	352.2	0.2%	100%	11,801	3.0%	100%

Table 17: Employment by Region

	Employment (000)						
	Southeast	Southwest	East central	West central	North	Regina CMA	Saskatoon CMA
Annual Averages							
1987	41.3	57.8	46.6	32.0	9.1	96.7	100.0
1988	41.0	57.6	46.5	31.3	9.0	96.0	101.9
1989	40.0	54.5	45.9	30.3	9.2	96.4	102.3
1990	39.0	56.1	43.5	31.1	9.4	98.6	100.8
1991	40.5	53.7	43.7	29.4	9.7	98.5	101.4
1992	38.0	50.3	43.8	31.0	9.8	97.3	100.1
1993	38.7	52.1	43.6	29.5	10.0	99.5	101.7
1994	40.0	51.8	44.1	26.9	9.8	100.1	104.7
1995	40.4	53.6	42.7	28.4	10.0	98.9	106.5
1996	40.3	52.3	42.9	28.6	9.8	100.8	108.4
1997	41.6	52.7	43.3	28.2	9.8	102.4	113.0
1998	40.0	53.3	42.3	29.5	10.1	108.1	112.8
Five year average annual growth rates:							
1988 to 1993	-5.6%	-9.5%	-6.2%	-5.8%	10.5%	3.6%	-0.2%
1993 to 1998	0.7%	0.5%	-0.6%	0.0%	0.2%	1.7%	2.1%
Ten year average annual growth rate	-0.2%	-0.8%	-0.9%	-0.6%	1.1%	1.2%	1.0%

Table 18: Employment by Industry Group (000)

	1988	1990	1992	1994	1996	1998	Ten year Average Growth Rate	
							Sask	Canada
Goods producing								
Agriculture	81.1	85.7	77.1	69.1	70.0	71.4	-1.3%	-0.4%
Forestry, Fishing, Mining, Oil and Gas	13.1	12.7	12.5	12.1	16.0	15.7	1.8%	-0.7%
Utilities	4.3	3.4	3.8	4.1	3.4	3.5	-2.0%	-0.1%
Construction	27.0	22.5	20.3	20.0	20.0	23.6	-1.3%	-0.2%
Manufacturing	25.8	24.9	23.9	26.0	28.6	31.3	2.0%	0.1%
Service producing								
Wholesale Trade	16.2	15.4	14.5	15.5	16.5	16.8	0.4%	0.7%
Retail Trade	58.8	56.8	53.3	57.4	56.4	52.4	-1.1%	0.3%
Transportation and Warehousing	20.5	19.6	20.4	22.8	23.4	22.2	0.8%	1.2%
Finance and Insurance	16.9	15.4	17.0	17.7	15.8	17.1	0.1%	0.6%
Real Estate and Leasing	6.3	6.5	7.5	7.2	5.8	7.7	2.0%	0.6%
Professional, Scientific and Technical Services*	11.8	11.8	12.0	12.8	14.2	17.1	3.8%	5.5%
Management, Administrative and Other Support**	7.3	7.9	8.4	10.2	8.9	12.3	5.4%	5.0%
Educational Services	30.1	31.5	32.1	32.3	33.3	35.6	1.7%	1.5%
Health Care and Social Assistance	46.8	48.5	52.1	50.4	51.2	52.6	1.2%	2.0%
Information, Culture and Recreation***	18.0	17.7	15.2	16.8	17.2	20.3	1.2%	2.2%
Accommodation and Food Services	27.0	25.9	28.3	28.5	27.2	29.1	0.8%	2.0%
Other Services****	25.1	22.9	22.2	25.3	24.3	23.1	-0.8%	1.4%
Public Administration	28.6	29.4	29.8	28.7	29.1	27.0	-0.6%	-0.1%
All Industries	464.8	458.5	450.5	456.7	461.2	478.6	0.3%	1.1%
Distribution of employment								
Goods producing	33%	33%	31%	29%	30%	30%		
Service producing	67%	67%	69%	71%	70%	70%		
Total	100%	100%	100%	100%	100%	100%		

Labour Market Characteristics

Occupation

Table 19: Employment by Occupation Group (000)

	1988	1990	1992	1994	1996	1998	Ten year Average Growth Rate	
							Sask	Canada
Management Occupations	38.6	39.1	40.2	44.7	44.4	44.8	1.5%	1.7%
Business, Finance and Administrative Occupations	73.1	69.4	67.3	70.7	66.9	70.1	-0.4%	0.0%
Natural and Applied Sciences and Related	15.1	13.0	12.4	13.6	13.7	15.9	0.5%	3.5%
Health Occupations	24.9	24.3	27.5	26.2	26.7	26.6	0.7%	1.7%
Social Science, Education, Government	23.8	27.3	28.6	28.3	30.8	29.9	2.3%	2.6%
and Religion	8.9	8.5	8.4	10.4	10.5	10.3	1.5%	2.3%
Occupations in Art, Culture, Recreation and Sport								
Sales and Service Occupations	11.9	10.7	11.3	11.6	12.5	14.0	1.6%	2.4%
Wholesale, Technical, Insurance, Real								
Estate Sales Specialists	24.5	24.2	21.4	22.6	22.8	23.8	-0.3%	0.8%
Retail Salespersons, Sales Clerks,								
Cashiers	17.0	15.7	16.3	16.4	15.9	16.7	-0.2%	1.6%
Chefs and Cooks, and Occupations in								
Food and Beverage Service	5.4	6.2	5.7	5.3	6.2	5.9	0.9%	1.0%
Occupation in Protective Services	12.1	14.1	12.5	11.7	13.2	12.6	0.4%	3.0%
Childcare and Home Support Workers	38.8	38.2	43.1	40.5	38.6	42.4	0.9%	1.4%
Other Sales and Service Occupations								
Trades, Transport and Equipment Operators								
Contractors and Supervisors in Trades	8.0	7.3	7.1	7.2	8.0	7.1	-1.2%	0.8%
and Transportation								
Construction Trades	9.8	8.2	6.4	8.1	6.9	9.5	-0.3%	-0.3%
Other Trades	23.2	21.5	21.1	20.4	21.7	22.6	-0.3%	0.1%
Transport and Equipment Operators	19.8	17.4	17.6	19.2	19.0	18.1	-0.9%	0.6%
Trades Helpers, Construction, and								
Transportation Labourers and Related	8.1	8.0	8.1	7.1	9.7	10.2	2.3%	0.9%
Unique to Primary Industry	85.5	90.1	81.0	75.5	77.0	78.0	-0.9%	-0.3%
Unique to Processing, Manufacturing and Utilities	16.3	15.3	14.6	17.2	16.6	20.1	2.1%	0.4%
All Occupations	464.8	458.5	450.5	456.7	461.2	478.6	0.3%	1.1%



Appendix 2

Detailed Population and Potential Labour Force Tables By Age, Sex, and Registered Indian Status Population 15 & Older



Total Population
Zero Net Migration Assumption

		As of July 1st:							
		1983	1988	1993	1998	2003	2008	2013	2018
Female	15 - 19	43,827	38,986	37,227	39,252	39,430	38,281	33,364	32,570
	20 - 24	48,682	42,044	34,656	35,604	39,134	39,311	38,167	33,264
	25 - 29	45,014	46,244	36,225	32,471	35,551	39,076	39,252	38,109
	30 - 34	36,067	43,206	41,888	35,561	32,374	35,444	38,959	39,135
	35 - 44	52,692	63,405	72,779	80,530	76,557	67,623	67,519	74,076
	45 - 54	45,152	45,066	49,185	58,364	70,855	79,456	75,514	66,707
	55 - 59	23,947	22,317	20,840	21,707	25,746	31,261	37,946	39,690
	60 - 64	23,130	22,738	21,149	19,994	21,138	25,070	30,441	36,951
	65 - 69	21,068	21,847	21,351	19,977	19,314	20,419	24,217	29,405
	<u>70 +</u>	<u>44,862</u>	<u>52,235</u>	<u>59,300</u>	<u>63,932</u>	<u>69,373</u>	<u>71,582</u>	<u>73,070</u>	<u>77,223</u>
	Total, 15 & older	384,441	398,088	394,600	407,392	429,471	447,523	458,450	467,131
Male	15 - 19	45,817	40,630	38,972	41,474	41,470	40,282	34,534	33,532
	20 - 24	50,745	44,406	36,479	37,484	41,246	41,242	40,061	34,344
	25 - 29	47,093	48,125	37,155	33,527	37,241	40,979	40,975	39,801
	30 - 34	38,281	45,391	42,288	35,501	33,260	36,944	40,652	40,648
	35 - 44	54,573	66,978	75,726	81,724	76,254	68,101	69,557	76,879
	45 - 54	46,256	45,942	50,319	60,777	73,124	79,886	74,522	66,562
	55 - 59	23,295	22,658	20,762	21,580	26,251	32,049	38,101	38,580
	60 - 64	21,937	21,677	20,962	19,466	20,835	25,345	30,943	36,786
	65 - 69	19,364	19,606	19,522	19,103	18,058	19,329	23,512	28,705
	<u>70 +</u>	<u>36,682</u>	<u>40,425</u>	<u>43,428</u>	<u>45,819</u>	<u>49,832</u>	<u>51,135</u>	<u>52,561</u>	<u>57,090</u>
	Total, 15 & older	384,043	395,838	385,613	396,455	417,571	435,290	445,417	452,928
Both Sexes	15 - 19	89,644	79,616	76,199	80,726	80,899	78,563	67,898	66,102
	20 - 24	99,427	86,450	71,135	73,088	80,381	80,553	78,227	67,608
	25 - 29	92,107	94,369	73,380	65,998	72,792	80,055	80,227	77,910
	30 - 34	74,348	88,597	84,176	71,062	65,633	72,388	79,611	79,783
	35 - 44	107,265	130,383	148,505	162,254	152,812	135,724	137,076	150,955
	45 - 54	91,408	91,008	99,504	119,141	143,980	159,342	150,036	133,269
	55 - 59	47,242	44,975	41,602	43,287	51,996	63,310	76,048	78,270
	60 - 64	45,067	44,415	42,111	39,460	41,973	50,415	61,384	73,738
	65 - 69	40,432	41,453	40,873	39,080	37,372	39,747	47,729	58,110
	<u>70 +</u>	<u>81,544</u>	<u>92,660</u>	<u>102,728</u>	<u>109,751</u>	<u>119,205</u>	<u>122,717</u>	<u>125,631</u>	<u>134,313</u>
	Total, 15 & older	768,484	793,926	780,213	803,847	847,042	882,814	903,867	920,059

Total Population
Five Year Migration Pattern Assumption

As of July 1st:

		<u>1983</u>	<u>1988</u>	<u>1993</u>	<u>1998</u>	<u>2003</u>	<u>2008</u>	<u>2013</u>	<u>2018</u>
Female	15 - 19	43,827	38,986	37,227	39,252	39,515	38,329	34,031	35,863
	20 - 24	48,682	42,044	34,656	35,604	37,541	37,793	36,658	32,547
	25 - 29	45,014	46,244	36,225	32,471	33,359	35,174	35,410	34,347
	30 - 34	36,067	43,206	41,888	35,561	31,876	32,748	34,529	34,761
	35 - 44	52,692	63,405	72,779	80,530	75,572	65,818	63,109	65,707
	45 - 54	45,152	45,066	49,185	58,364	69,747	77,145	72,358	63,027
	55 - 59	23,947	22,317	20,840	21,707	25,590	30,529	36,534	37,718
	60 - 64	23,130	22,738	21,149	19,994	20,826	24,552	29,290	35,051
	65 - 69	21,068	21,847	21,351	19,977	18,886	19,672	23,191	27,667
	<u>70 +</u>	<u>44,862</u>	<u>52,235</u>	<u>59,300</u>	<u>63,932</u>	<u>65,161</u>	<u>64,074</u>	<u>63,253</u>	<u>65,762</u>
	Total, 15 & older	384,441	398,088	394,600	407,392	418,073	425,832	428,363	432,450
Male	15 - 19	45,817	40,630	38,972	41,474	41,705	40,471	35,292	37,562
	20 - 24	50,745	44,406	36,479	37,484	39,890	40,113	38,925	33,945
	25 - 29	47,093	48,125	37,155	33,527	34,451	36,662	36,867	35,775
	30 - 34	38,281	45,391	42,288	35,501	32,035	32,917	35,030	35,226
	35 - 44	54,573	66,978	75,726	81,724	75,041	65,176	62,729	65,635
	45 - 54	46,256	45,942	50,319	60,777	72,305	78,020	71,629	62,217
	55 - 59	23,295	22,658	20,762	21,580	26,103	31,491	37,038	36,988
	60 - 64	21,937	21,677	20,962	19,466	20,233	24,474	29,525	34,726
	65 - 69	19,364	19,606	19,522	19,103	17,740	18,439	22,303	26,907
	<u>70 +</u>	<u>36,682</u>	<u>40,425</u>	<u>43,428</u>	<u>45,819</u>	<u>46,663</u>	<u>45,696</u>	<u>45,315</u>	<u>48,391</u>
	Total, 15 & older	384,043	395,838	385,613	396,455	406,165	413,459	414,654	417,373
Both Sexes	15 - 19	89,644	79,616	76,199	80,726	81,220	78,800	69,324	73,425
	20 - 24	99,427	86,450	71,135	73,088	77,431	77,905	75,584	66,492
	25 - 29	92,107	94,369	73,380	65,998	67,810	71,836	72,276	70,122
	30 - 34	74,348	88,597	84,176	71,062	63,910	65,665	69,559	69,986
	35 - 44	107,265	130,383	148,505	162,254	150,613	130,994	125,838	131,343
	45 - 54	91,408	91,008	99,504	119,141	142,051	155,165	143,987	125,244
	55 - 59	47,242	44,975	41,602	43,287	51,693	62,020	73,572	74,706
	60 - 64	45,067	44,415	42,111	39,460	41,059	49,025	58,815	69,777
	65 - 69	40,432	41,453	40,873	39,080	36,626	38,110	45,494	54,574
	<u>70 +</u>	<u>81,544</u>	<u>92,660</u>	<u>102,728</u>	<u>109,751</u>	<u>111,824</u>	<u>109,770</u>	<u>108,568</u>	<u>114,153</u>
	Total, 15 & older	768,484	793,926	780,213	803,847	824,238	839,291	843,016	849,823

**Total Population
Ten Year Migration Pattern Assumption**

As of July 1st:

		<u>1983</u>	<u>1988</u>	<u>1993</u>	<u>1998</u>	<u>2003</u>	<u>2008</u>	<u>2013</u>	<u>2018</u>
Female	15 - 19	43,827	38,986	37,227	39,252	38,842	36,837	31,968	32,324
	20 - 24	48,682	42,044	34,656	35,604	36,490	36,109	34,245	29,718
	25 - 29	45,014	46,244	36,225	32,471	32,459	33,267	32,920	31,220
	30 - 34	36,067	43,206	41,888	35,561	31,021	31,010	31,782	31,450
	35 - 44	52,692	63,405	72,779	80,530	74,206	63,143	58,896	59,630
	45 - 54	45,152	45,066	49,185	58,364	69,120	75,358	69,444	59,090
	55 - 59	23,947	22,317	20,840	21,707	25,377	30,118	35,606	36,138
	60 - 64	23,130	22,738	21,149	19,994	20,752	24,260	28,793	34,040
	65 - 69	21,068	21,847	21,351	19,977	18,839	19,554	22,859	27,130
	<u>70 +</u>	<u>44,862</u>	<u>52,235</u>	<u>59,300</u>	<u>63,932</u>	<u>65,105</u>	<u>63,952</u>	<u>63,059</u>	<u>65,342</u>
	Total, 15 & older	384,441	398,088	394,600	407,392	412,212	413,607	409,571	406,083
Male	15 - 19	45,817	40,630	38,972	41,474	40,953	39,039	33,340	34,104
	20 - 24	50,745	44,406	36,479	37,484	38,863	38,374	36,581	31,241
	25 - 29	47,093	48,125	37,155	33,527	33,315	34,540	34,106	32,512
	30 - 34	38,281	45,391	42,288	35,501	31,241	31,043	32,185	31,780
	35 - 44	54,573	66,978	75,726	81,724	73,372	62,164	58,089	58,996
	45 - 54	46,256	45,942	50,319	60,777	71,348	75,625	67,915	57,534
	55 - 59	23,295	22,658	20,762	21,580	25,878	30,879	35,768	34,985
	60 - 64	21,937	21,677	20,962	19,466	20,183	24,203	28,880	33,453
	65 - 69	19,364	19,606	19,522	19,103	17,680	18,332	21,983	26,231
	<u>70 +</u>	<u>36,682</u>	<u>40,425</u>	<u>43,428</u>	<u>45,819</u>	<u>46,378</u>	<u>45,209</u>	<u>44,687</u>	<u>47,498</u>
	Total, 15 & older	384,043	395,838	385,613	396,455	399,211	399,408	393,534	388,336
Both Sexes	15 - 19	89,644	79,616	76,199	80,726	79,795	75,876	65,308	66,428
	20 - 24	99,427	86,450	71,135	73,088	75,353	74,483	70,825	60,959
	25 - 29	92,107	94,369	73,380	65,998	65,774	67,807	67,025	63,732
	30 - 34	74,348	88,597	84,176	71,062	62,263	62,054	63,967	63,231
	35 - 44	107,265	130,383	148,505	162,254	147,578	125,307	116,984	118,627
	45 - 54	91,408	91,008	99,504	119,141	140,468	150,983	137,359	116,624
	55 - 59	47,242	44,975	41,602	43,287	51,255	60,997	71,374	71,124
	60 - 64	45,067	44,415	42,111	39,460	40,935	48,463	57,673	67,493
	65 - 69	40,432	41,453	40,873	39,080	36,520	37,885	44,842	53,361
	<u>70 +</u>	<u>81,544</u>	<u>92,660</u>	<u>102,728</u>	<u>109,751</u>	<u>111,483</u>	<u>109,161</u>	<u>107,746</u>	<u>112,840</u>
	Total, 15 & older	768,484	793,926	780,213	803,847	811,422	813,015	803,105	794,418

**Registered Indian Population
Zero Net Migration Pattern Assumption**

		As of July 1st:							
		1983	1988	1993	1998	2003	2008	2013	2018
Female	15 - 19	3,013	3,438	3,515	4,307	5,310	6,251	6,097	5,014
	20 - 24	2,618	3,196	3,528	3,885	4,281	5,279	6,214	6,060
	25 - 29	1,813	2,708	3,209	3,789	3,873	4,268	5,263	6,195
	30 - 34	1,274	1,958	2,753	3,489	3,766	3,850	4,243	5,231
	35 - 44	1,596	2,462	3,601	5,168	6,407	7,191	7,549	8,022
	45 - 54	1,117	1,447	1,924	2,714	3,739	5,035	6,239	7,001
	55 - 59	414	528	671	856	1,084	1,503	2,061	2,739
	60 - 64	285	409	547	661	812	1,028	1,425	1,954
	65 - 69	227	276	423	516	617	757	959	1,329
	70 +	493	563	661	835	1,033	1,277	1,574	1,959
Total, 15 & older		12,850	16,985	20,832	26,220	30,922	36,439	41,624	45,506
Male	15 - 19	2,951	3,414	3,576	4,506	5,486	6,601	6,168	5,055
	20 - 24	2,485	3,038	3,478	3,819	4,457	5,426	6,528	6,100
	25 - 29	1,826	2,480	3,078	3,645	3,770	4,399	5,356	6,444
	30 - 34	1,363	1,838	2,570	3,297	3,587	3,710	4,329	5,271
	35 - 44	1,838	2,425	3,345	4,731	5,953	6,757	7,161	7,893
	45 - 54	1,222	1,429	1,853	2,511	3,374	4,524	5,691	6,458
	55 - 59	445	565	623	788	977	1,331	1,770	2,388
	60 - 64	333	392	540	569	734	910	1,240	1,650
	65 - 69	278	297	358	492	489	631	783	1,066
	70 +	487	540	606	688	771	834	983	1,196
Total, 15 & older		13,228	16,418	20,027	25,046	29,597	35,124	40,009	43,521
Both Sexes	15 - 19	5,964	6,852	7,091	8,813	10,796	12,852	12,264	10,070
	20 - 24	5,103	6,234	7,006	7,704	8,738	10,705	12,742	12,160
	25 - 29	3,639	5,188	6,287	7,434	7,643	8,667	10,619	12,639
	30 - 34	2,637	3,796	5,323	6,786	7,353	7,560	8,572	10,502
	35 - 44	3,434	4,887	6,946	9,899	12,360	13,949	14,709	15,915
	45 - 54	2,339	2,876	3,777	5,225	7,112	9,559	11,930	13,459
	55 - 59	859	1,093	1,294	1,644	2,061	2,834	3,831	5,128
	60 - 64	618	801	1,087	1,230	1,546	1,938	2,666	3,604
	65 - 69	505	573	781	1,008	1,106	1,388	1,741	2,396
	70 +	980	1,103	1,267	1,523	1,804	2,111	2,558	3,154
Total, 15 & older		26,078	33,403	40,859	51,266	60,520	71,563	81,633	89,027

**Registered Indian Population
Five Year Migration Pattern Assumption**

As of July 1st:

		<u>1983</u>	<u>1988</u>	<u>1993</u>	<u>1998</u>	<u>2003</u>	<u>2008</u>	<u>2013</u>	<u>2018</u>
Female	15 - 19	3,013	3,438	3,515	4,307	6,010	7,946	8,944	9,269
	20 - 24	2,618	3,196	3,528	3,885	4,760	6,643	8,783	9,886
	25 - 29	1,813	2,708	3,209	3,789	4,172	5,113	7,134	9,432
	30 - 34	1,274	1,958	2,753	3,489	4,120	4,536	5,559	7,757
	35 - 44	1,596	2,462	3,601	5,168	6,870	8,382	9,545	11,116
	45 - 54	1,117	1,447	1,924	2,714	3,961	5,684	7,550	9,207
	55 - 59	414	528	671	856	1,163	1,686	2,473	3,493
	60 - 64	285	409	547	661	843	1,146	1,661	2,437
	65 - 69	227	276	423	516	624	795	1,081	1,567
	70 +	<u>493</u>	<u>563</u>	<u>661</u>	<u>835</u>	<u>1,046</u>	<u>1,296</u>	<u>1,621</u>	<u>2,099</u>
	Total, 15 & older	12,850	16,985	20,832	26,220	33,570	43,228	54,351	66,262
Male	15 - 19	2,951	3,414	3,576	4,506	6,131	8,360	8,988	9,601
	20 - 24	2,485	3,038	3,478	3,819	4,812	6,548	8,928	9,599
	25 - 29	1,826	2,480	3,078	3,645	4,002	5,043	6,862	9,356
	30 - 34	1,363	1,838	2,570	3,297	3,904	4,287	5,402	7,350
	35 - 44	1,838	2,425	3,345	4,731	6,398	7,862	8,951	10,569
	45 - 54	1,222	1,429	1,853	2,511	3,485	4,933	6,662	8,178
	55 - 59	445	565	623	788	1,010	1,427	1,956	2,832
	60 - 64	333	392	540	569	720	923	1,303	1,786
	65 - 69	278	297	358	492	518	656	841	1,187
	70 +	<u>487</u>	<u>540</u>	<u>606</u>	<u>688</u>	<u>860</u>	<u>1,005</u>	<u>1,211</u>	<u>1,503</u>
	Total, 15 & older	13,228	16,418	20,027	25,046	31,842	41,042	51,104	61,962
Both Sexes	15 - 19	5,964	6,852	7,091	8,813	12,141	16,306	17,933	18,869
	20 - 24	5,103	6,234	7,006	7,704	9,573	13,191	17,710	19,485
	25 - 29	3,639	5,188	6,287	7,434	8,175	10,156	13,997	18,789
	30 - 34	2,637	3,796	5,323	6,786	8,024	8,824	10,961	15,107
	35 - 44	3,434	4,887	6,946	9,899	13,268	16,244	18,496	21,685
	45 - 54	2,339	2,876	3,777	5,225	7,447	10,616	14,211	17,384
	55 - 59	859	1,093	1,294	1,644	2,174	3,113	4,429	6,326
	60 - 64	618	801	1,087	1,230	1,563	2,069	2,964	4,223
	65 - 69	505	573	781	1,008	1,142	1,451	1,922	2,754
	70 +	<u>980</u>	<u>1,103</u>	<u>1,267</u>	<u>1,523</u>	<u>1,905</u>	<u>2,301</u>	<u>2,832</u>	<u>3,602</u>
	Total, 15 & older	26,078	33,403	40,859	51,266	65,412	84,270	105,455	128,224

**Registered Indian Population
Ten Year Migration Pattern Assumption**

		As of July 1st:							
		1983	1988	1993	1998	2003	2008	2013	2018
Female	15 - 19	3,013	3,438	3,515	4,307	5,814	7,360	7,899	7,861
	20 - 24	2,618	3,196	3,528	3,885	4,634	6,255	7,918	8,498
	25 - 29	1,813	2,708	3,209	3,789	4,106	4,897	6,611	8,368
	30 - 34	1,274	1,958	2,753	3,489	3,971	4,303	5,133	6,929
	35 - 44	1,596	2,462	3,601	5,168	6,750	8,008	8,886	10,124
	45 - 54	1,117	1,447	1,924	2,714	3,921	5,539	7,231	8,575
	55 - 59	414	528	671	856	1,133	1,635	2,364	3,285
	60 - 64	285	409	547	661	830	1,099	1,586	2,294
	65 - 69	227	276	423	516	637	800	1,059	1,528
	70 +	493	563	661	835	1,071	1,358	1,715	2,209
Total, 15 & older		12,850	16,985	20,832	26,220	32,867	41,255	50,403	59,671
Male	15 - 19	2,951	3,414	3,576	4,506	5,935	7,744	7,980	8,199
	20 - 24	2,485	3,038	3,478	3,819	4,707	6,200	8,090	8,336
	25 - 29	1,826	2,480	3,078	3,645	3,929	4,843	6,379	8,323
	30 - 34	1,363	1,838	2,570	3,297	3,810	4,108	5,063	6,669
	35 - 44	1,838	2,425	3,345	4,731	6,241	7,487	8,345	9,657
	45 - 54	1,222	1,429	1,853	2,511	3,468	4,827	6,362	7,628
	55 - 59	445	565	623	788	1,015	1,421	1,944	2,740
	60 - 64	333	392	540	569	720	928	1,299	1,777
	65 - 69	278	297	358	492	518	656	845	1,183
	70 +	487	540	606	688	862	1,009	1,218	1,517
Total, 15 & older		13,228	16,418	20,027	25,046	31,207	39,223	47,525	56,030
Both Sexes	15 - 19	5,964	6,852	7,091	8,813	11,749	15,103	15,879	16,060
	20 - 24	5,103	6,234	7,006	7,704	9,341	12,456	16,008	16,835
	25 - 29	3,639	5,188	6,287	7,434	8,035	9,741	12,990	16,692
	30 - 34	2,637	3,796	5,323	6,786	7,782	8,411	10,196	13,598
	35 - 44	3,434	4,887	6,946	9,899	12,991	15,495	17,231	19,781
	45 - 54	2,339	2,876	3,777	5,225	7,388	10,366	13,594	16,204
	55 - 59	859	1,093	1,294	1,644	2,149	3,056	4,308	6,024
	60 - 64	618	801	1,087	1,230	1,551	2,028	2,886	4,071
	65 - 69	505	573	781	1,008	1,155	1,456	1,904	2,711
	70 +	980	1,103	1,267	1,523	1,933	2,367	2,933	3,726
Total, 15 & older		26,078	33,403	40,859	51,266	64,074	80,478	97,928	115,702

Non-Indian Population
Total Population: Zero Net Migration
Indian Population: Zero Net Migration

		As of July 1st:							
		1983	1988	1993	1998	2003	2008	2013	2018
Female	15 - 19	40,814	35,548	33,712	34,945	34,119	32,030	27,267	27,556
	20 - 24	46,064	38,848	31,128	31,719	34,853	34,033	31,953	27,204
	25 - 29	43,201	43,536	33,016	28,682	31,677	34,807	33,990	31,915
	30 - 34	34,793	41,248	39,135	32,072	28,607	31,594	34,716	33,904
	35 - 44	51,096	60,943	69,178	75,362	70,150	60,432	59,971	66,054
	45 - 54	44,035	43,619	47,261	55,650	67,116	74,421	69,274	59,706
	55 - 59	23,533	21,789	20,169	20,851	24,661	29,758	35,885	36,951
	60 - 64	22,845	22,329	20,602	19,333	20,326	24,043	29,016	34,997
	65 - 69	20,841	21,571	20,928	19,461	18,697	19,661	23,259	28,076
	70 +	44,369	51,672	58,639	63,097	68,340	70,305	71,496	75,265
	Total, 15 & older	371,591	381,103	373,768	381,172	398,549	411,084	416,826	421,625
Male	15 - 19	42,866	37,216	35,396	36,968	35,983	33,681	28,366	28,477
	20 - 24	48,260	41,368	33,001	33,665	36,790	35,816	33,532	28,244
	25 - 29	45,267	45,645	34,077	29,882	33,471	36,580	35,619	33,357
	30 - 34	36,918	43,553	39,718	32,204	29,673	33,234	36,323	35,377
	35 - 44	52,735	64,553	72,381	76,993	70,301	61,344	62,396	68,986
	45 - 54	45,034	44,513	48,466	58,266	69,751	75,362	68,832	60,104
	55 - 59	22,850	22,093	20,139	20,792	25,274	30,718	36,331	36,192
	60 - 64	21,604	21,285	20,422	18,897	20,101	24,434	29,702	35,137
	65 - 69	19,086	19,309	19,164	18,611	17,569	18,697	22,729	27,639
	70 +	36,195	39,885	42,822	45,131	49,061	50,300	51,577	55,894
	Total, 15 & older	370,815	379,420	365,586	371,409	387,974	400,167	405,408	409,407
Both Sexes	15 - 19	83,680	72,764	69,108	71,913	70,103	65,712	55,633	56,033
	20 - 24	94,324	80,216	64,129	65,384	71,643	69,849	65,485	55,448
	25 - 29	88,468	89,181	67,093	58,564	65,149	71,387	69,608	65,272
	30 - 34	71,711	84,801	78,853	64,276	58,280	64,828	71,039	69,281
	35 - 44	103,831	125,496	141,559	152,355	140,452	121,776	122,367	135,040
	45 - 54	89,069	88,132	95,727	113,916	136,867	149,783	138,106	119,810
	55 - 59	46,383	43,882	40,308	41,643	49,935	60,475	72,216	73,143
	60 - 64	44,449	43,614	41,024	38,230	40,427	48,477	58,718	70,134
	65 - 69	39,927	40,880	40,092	38,072	36,266	38,359	45,988	55,715
	70 +	80,564	91,557	101,461	108,228	117,401	120,605	123,073	131,158
	Total, 15 & older	742,406	760,523	739,354	752,581	786,523	811,251	822,234	831,032

Non-Indian Population
Total Population: Five Year Migration Pattern
Indian Population: Zero Net Migration

		As of July 1st:							
		1983	1988	1993	1998	2003	2008	2013	2018
Female	15 - 19	40,814	35,548	33,712	34,945	34,205	32,078	27,934	30,849
	20 - 24	46,064	38,848	31,128	31,719	33,259	32,514	30,445	26,487
	25 - 29	43,201	43,536	33,016	28,682	29,486	30,905	30,147	28,152
	30 - 34	34,793	41,248	39,135	32,072	28,109	28,898	30,286	29,529
	35 - 44	51,096	60,943	69,178	75,362	69,165	58,627	55,560	57,685
	45 - 54	44,035	43,619	47,261	55,650	66,008	72,110	66,119	56,026
	55 - 59	23,533	21,789	20,169	20,851	24,506	29,026	34,472	34,979
	60 - 64	22,845	22,329	20,602	19,333	20,014	23,524	27,865	33,096
	65 - 69	20,841	21,571	20,928	19,461	18,269	18,915	22,232	26,337
	<u>70 +</u>	<u>44,369</u>	<u>51,672</u>	<u>58,639</u>	<u>63,097</u>	<u>64,128</u>	<u>62,797</u>	<u>61,679</u>	<u>63,804</u>
Total, 15 & older		371,591	381,103	373,768	381,172	387,151	389,393	386,739	386,945
Male	15 - 19	42,866	37,216	35,396	36,968	36,219	33,870	29,125	32,507
	20 - 24	48,260	41,368	33,001	33,665	35,434	34,687	32,397	27,845
	25 - 29	45,267	45,645	34,077	29,882	30,681	32,263	31,511	29,332
	30 - 34	36,918	43,553	39,718	32,204	28,447	29,207	30,701	29,955
	35 - 44	52,735	64,553	72,381	76,993	69,087	58,419	55,568	57,742
	45 - 54	45,034	44,513	48,466	58,266	68,931	73,496	65,938	55,759
	55 - 59	22,850	22,093	20,139	20,792	25,126	30,160	35,268	34,600
	60 - 64	21,604	21,285	20,422	18,897	19,499	23,563	28,285	33,077
	65 - 69	19,086	19,309	19,164	18,611	17,251	17,807	21,521	25,841
	<u>70 +</u>	<u>36,195</u>	<u>39,885</u>	<u>42,822</u>	<u>45,131</u>	<u>45,893</u>	<u>44,862</u>	<u>44,331</u>	<u>47,195</u>
Total, 15 & older		370,815	379,420	365,586	371,409	376,568	378,335	374,645	373,852
Both Sexes	15 - 19	83,680	72,764	69,108	71,913	70,424	65,948	57,059	63,356
	20 - 24	94,324	80,216	64,129	65,384	68,693	67,201	62,842	54,332
	25 - 29	88,468	89,181	67,093	58,564	60,167	63,169	61,658	57,484
	30 - 34	71,711	84,801	78,853	64,276	56,557	58,105	60,988	59,484
	35 - 44	103,831	125,496	141,559	152,355	138,253	117,046	111,129	115,428
	45 - 54	89,069	88,132	95,727	113,916	134,939	145,606	132,056	111,785
	55 - 59	46,383	43,882	40,308	41,643	49,632	59,186	69,741	69,578
	60 - 64	44,449	43,614	41,024	38,230	39,513	47,087	56,150	66,173
	65 - 69	39,927	40,880	40,092	38,072	35,520	36,722	43,753	52,178
	<u>70 +</u>	<u>80,564</u>	<u>91,557</u>	<u>101,461</u>	<u>108,228</u>	<u>110,021</u>	<u>107,659</u>	<u>106,010</u>	<u>110,999</u>
Total, 15 & older		742,406	760,523	739,354	752,581	763,719	767,728	761,384	760,796

Non-Indian Population
Total Population: Ten Year Migration Pattern
Indian Population: Zero Net Migration

As of July 1st:

		1983	1988	1993	1998	2003	2008	2013	2018
Female	15 - 19	40,814	35,548	33,712	34,945	33,532	30,586	25,871	27,309
	20 - 24	46,064	38,848	31,128	31,719	32,209	30,830	28,031	23,658
	25 - 29	43,201	43,536	33,016	28,682	28,586	28,999	27,657	25,025
	30 - 34	34,793	41,248	39,135	32,072	27,255	27,160	27,539	26,219
	35 - 44	51,096	60,943	69,178	75,362	67,799	55,951	51,347	51,608
	45 - 54	44,035	43,619	47,261	55,650	65,381	70,323	63,205	52,089
	55 - 59	23,533	21,789	20,169	20,851	24,293	28,615	33,545	33,399
	60 - 64	22,845	22,329	20,602	19,333	19,940	23,232	27,368	32,085
	65 - 69	20,841	21,571	20,928	19,461	18,223	18,796	21,900	25,801
	<u>70 +</u>	<u>44,369</u>	<u>51,672</u>	<u>58,639</u>	<u>63,097</u>	<u>64,072</u>	<u>62,675</u>	<u>61,484</u>	<u>63,383</u>
	Total, 15 & older	371,591	381,103	373,768	381,172	381,289	377,168	367,948	360,577
Male	15 - 19	42,866	37,216	35,396	36,968	35,467	32,438	27,172	29,049
	20 - 24	48,260	41,368	33,001	33,665	34,406	32,948	30,053	25,141
	25 - 29	45,267	45,645	34,077	29,882	29,545	30,141	28,750	26,068
	30 - 34	36,918	43,553	39,718	32,204	27,654	27,334	27,856	26,510
	35 - 44	52,735	64,553	72,381	76,993	67,419	55,407	50,928	51,103
	45 - 54	45,034	44,513	48,466	58,266	67,974	71,101	62,224	51,076
	55 - 59	22,850	22,093	20,139	20,792	24,901	29,547	33,998	32,597
	60 - 64	21,604	21,285	20,472	18,897	19,449	23,293	27,639	31,803
	65 - 69	19,086	19,309	19,164	18,611	17,191	17,701	21,200	25,164
	<u>70 +</u>	<u>36,195</u>	<u>39,885</u>	<u>42,822</u>	<u>45,131</u>	<u>45,607</u>	<u>44,375</u>	<u>43,704</u>	<u>46,303</u>
	Total, 15 & older	370,815	379,420	365,586	371,409	369,614	364,284	353,525	344,815
Both Sexes	15 - 19	83,680	72,764	69,108	71,913	68,998	63,024	53,044	56,359
	20 - 24	94,324	80,216	64,129	65,384	66,615	63,778	58,084	48,799
	25 - 29	88,468	89,181	67,093	58,564	58,131	59,140	56,407	51,093
	30 - 34	71,711	84,801	78,853	64,276	54,909	54,494	55,395	52,729
	35 - 44	103,831	125,496	141,559	152,355	135,218	111,358	102,275	102,712
	45 - 54	89,069	88,132	95,727	113,916	133,356	141,424	125,429	103,165
	55 - 59	46,383	43,882	40,308	41,643	49,194	58,162	67,543	65,996
	60 - 64	44,449	43,614	41,024	38,230	39,389	46,525	55,007	63,889
	65 - 69	39,927	40,880	40,092	38,072	35,414	36,497	43,101	50,965
	<u>70 +</u>	<u>80,564</u>	<u>91,557</u>	<u>101,461</u>	<u>108,228</u>	<u>109,679</u>	<u>107,050</u>	<u>105,188</u>	<u>109,686</u>
	Total, 15 & older	742,406	760,523	739,354	752,581	750,903	741,452	721,472	705,391

Non-Indian Population
Total Population: Zero Net Migration
Indian Population: Five Year Migration Pattern

As of July 1st:

		<u>1983</u>	<u>1988</u>	<u>1993</u>	<u>1998</u>	<u>2003</u>	<u>2008</u>	<u>2013</u>	<u>2018</u>
Female	15 - 19	40,814	35,548	33,712	34,945	33,419	30,335	24,420	23,302
	20 - 24	46,064	38,848	31,128	31,719	34,374	32,668	29,384	23,378
	25 - 29	43,201	43,536	33,016	28,682	31,378	33,963	32,118	28,677
	30 - 34	34,793	41,248	39,135	32,072	28,254	30,908	33,400	31,378
	35 - 44	51,096	60,943	69,178	75,362	69,687	59,241	57,975	62,960
	45 - 54	44,035	43,619	47,261	55,650	66,894	73,772	67,964	57,501
	55 - 59	23,533	21,789	20,169	20,851	24,582	29,575	35,473	36,197
	60 - 64	22,845	22,329	20,602	19,333	20,295	23,924	28,780	34,515
	65 - 69	20,841	21,571	20,928	19,461	18,690	19,623	23,136	27,838
	<u>70 +</u>	<u>44,369</u>	<u>51,672</u>	<u>58,639</u>	<u>63,097</u>	<u>68,328</u>	<u>70,286</u>	<u>71,449</u>	<u>75,124</u>
	Total, 15 & older	371,591	381,103	373,768	381,172	395,901	404,296	404,099	400,869
Male	15 - 19	42,866	37,216	35,396	36,968	35,338	31,922	25,546	23,931
	20 - 24	48,260	41,368	33,001	33,665	36,434	34,694	31,133	24,745
	25 - 29	45,267	45,645	34,077	29,882	33,239	35,936	34,112	30,445
	30 - 34	36,918	43,553	39,718	32,204	29,355	32,657	35,250	33,297
	35 - 44	52,735	64,553	72,381	76,993	69,856	60,239	60,605	66,310
	45 - 54	45,034	44,513	48,466	58,266	69,639	74,954	67,861	58,384
	55 - 59	22,850	22,093	20,139	20,792	25,240	30,622	36,145	35,748
	60 - 64	21,604	21,285	20,422	18,897	20,116	24,422	29,639	35,000
	65 - 69	19,086	19,309	19,164	18,611	17,540	18,673	22,671	27,518
	<u>70 +</u>	<u>36,195</u>	<u>39,885</u>	<u>42,822</u>	<u>45,131</u>	<u>48,972</u>	<u>50,130</u>	<u>51,350</u>	<u>55,587</u>
	Total, 15 & older	370,815	379,420	365,586	371,409	385,729	394,248	394,313	390,966
Both Sexes	15 - 19	83,680	72,764	69,108	71,913	68,758	62,257	49,965	47,233
	20 - 24	94,324	80,216	64,129	65,384	70,808	67,363	60,517	48,123
	25 - 29	88,468	89,181	67,093	58,564	64,617	69,899	66,230	59,122
	30 - 34	71,711	84,801	78,853	64,276	57,609	63,564	68,650	64,675
	35 - 44	103,831	125,496	141,559	152,355	139,544	119,481	118,580	129,270
	45 - 54	89,069	88,132	95,727	113,916	136,533	148,726	135,825	115,885
	55 - 59	46,383	43,882	40,308	41,643	49,822	60,196	71,618	71,945
	60 - 64	44,449	43,614	41,024	38,230	40,410	48,346	58,419	69,515
	65 - 69	39,927	40,880	40,092	38,072	36,230	38,296	45,807	55,356
	<u>70 +</u>	<u>80,564</u>	<u>91,557</u>	<u>101,461</u>	<u>108,228</u>	<u>117,299</u>	<u>120,416</u>	<u>122,799</u>	<u>130,711</u>
	Total, 15 & older	742,406	760,523	739,354	752,581	781,631	798,544	798,412	791,835

Non-Indian Population
Total Population: Five Year Migration Pattern
Indian Population: Five Year Migration Pattern

		As of July 1st:							
		<u>1983</u>	<u>1988</u>	<u>1993</u>	<u>1998</u>	<u>2003</u>	<u>2008</u>	<u>2013</u>	<u>2018</u>
Female	15 - 19	40,814	35,548	33,712	34,945	33,505	30,383	25,087	26,595
	20 - 24	46,064	38,848	31,128	31,719	32,780	31,150	27,875	22,662
	25 - 29	43,201	43,536	33,016	28,682	29,187	30,061	28,275	24,914
	30 - 34	34,793	41,248	39,135	32,072	27,756	28,211	28,970	27,004
	35 - 44	51,096	60,943	69,178	75,362	68,702	57,436	53,564	54,592
	45 - 54	44,035	43,619	47,261	55,650	65,785	71,461	64,808	53,821
	55 - 59	23,533	21,789	20,169	20,851	24,427	28,843	34,060	34,224
	60 - 64	22,845	22,329	20,602	19,333	19,983	23,405	27,629	32,614
	65 - 69	20,841	21,571	20,928	19,461	18,262	18,876	22,110	26,100
	70 +	<u>44,369</u>	<u>51,672</u>	<u>58,639</u>	<u>63,097</u>	<u>64,115</u>	<u>62,778</u>	<u>61,632</u>	<u>63,663</u>
Total, 15 & older		371,591	381,103	373,768	381,172	384,503	382,604	374,012	366,188
Male	15 - 19	42,866	37,216	35,396	36,968	35,574	32,111	26,304	27,961
	20 - 24	48,260	41,368	33,001	33,665	35,078	33,565	29,998	24,346
	25 - 29	45,267	45,645	34,077	29,882	30,448	31,619	30,005	26,419
	30 - 34	36,918	43,553	39,718	32,204	28,130	28,630	29,628	27,875
	35 - 44	52,735	64,553	72,381	76,993	68,642	57,315	53,778	55,066
	45 - 54	45,034	44,513	48,466	58,266	68,819	73,088	64,967	54,039
	55 - 59	22,850	22,093	20,139	20,792	25,093	30,064	35,082	34,156
	60 - 64	21,604	21,285	20,422	18,897	19,513	23,551	28,222	32,940
	65 - 69	19,086	19,309	19,164	18,611	17,221	17,783	21,462	25,719
	70 +	<u>36,195</u>	<u>39,885</u>	<u>42,822</u>	<u>45,131</u>	<u>45,804</u>	<u>44,692</u>	<u>44,104</u>	<u>46,889</u>
Total, 15 & older		370,815	379,420	365,586	371,409	374,323	372,417	363,549	355,410
Both Sexes	15 - 19	83,680	72,764	69,108	71,913	69,079	62,494	51,391	54,556
	20 - 24	94,324	80,216	64,129	65,384	67,859	64,715	57,873	47,008
	25 - 29	88,468	89,181	67,093	58,564	59,635	61,680	58,280	51,333
	30 - 34	71,711	84,801	78,853	64,276	55,886	56,841	58,599	54,879
	35 - 44	103,831	125,496	141,559	152,355	137,345	114,751	107,342	109,658
	45 - 54	89,069	88,132	95,727	113,916	134,604	144,549	129,775	107,860
	55 - 59	46,383	43,882	40,308	41,643	49,519	58,907	69,143	68,380
	60 - 64	44,449	43,614	41,024	38,230	39,496	46,956	55,851	65,554
	65 - 69	39,927	40,880	40,092	38,072	35,484	36,659	43,572	51,819
	70 +	<u>80,564</u>	<u>91,557</u>	<u>101,461</u>	<u>108,228</u>	<u>109,919</u>	<u>107,470</u>	<u>105,736</u>	<u>110,552</u>
Total, 15 & older		742,406	760,523	739,354	752,581	758,826	755,021	737,561	721,599

Non-Indian Population
Total Population: Ten Year Migration Pattern
Indian Population: Five Year Migration Pattern

As of July 1st:

		<u>1983</u>	<u>1988</u>	<u>1993</u>	<u>1998</u>	<u>2003</u>	<u>2008</u>	<u>2013</u>	<u>2018</u>
Female	15 - 19	40,814	35,548	33,712	34,945	32,832	28,890	23,024	23,055
	20 - 24	46,064	38,848	31,128	31,719	31,730	29,466	25,462	19,833
	25 - 29	43,201	43,536	33,016	28,682	28,287	28,155	25,785	21,787
	30 - 34	34,793	41,248	39,135	32,072	26,902	26,474	26,223	23,693
	35 - 44	51,096	60,943	69,178	75,362	67,336	54,761	49,351	48,514
	45 - 54	44,035	43,619	47,261	55,650	65,159	69,674	61,894	49,884
	55 - 59	23,533	21,789	20,169	20,851	24,213	28,432	33,133	32,645
	60 - 64	22,845	22,329	20,602	19,333	19,909	23,114	27,132	31,603
	65 - 69	20,841	21,571	20,928	19,461	18,216	18,758	21,778	25,563
	<u>70 +</u>	<u>44,369</u>	<u>51,672</u>	<u>58,639</u>	<u>63,097</u>	<u>64,059</u>	<u>62,656</u>	<u>61,438</u>	<u>63,243</u>
	Total, 15 & older	371,591	381,103	373,768	381,172	378,642	370,379	355,220	339,821
Male	15 - 19	42,866	37,216	35,396	36,968	34,821	30,679	24,352	24,504
	20 - 24	48,260	41,368	33,001	33,665	34,050	31,826	27,653	21,642
	25 - 29	45,267	45,645	34,077	29,882	29,312	29,497	27,244	23,156
	30 - 34	36,918	43,553	39,718	32,204	27,337	26,756	26,783	24,430
	35 - 44	52,735	64,553	72,381	78,993	68,974	54,302	49,137	48,427
	45 - 54	45,034	44,513	48,466	58,266	67,863	70,693	61,253	49,356
	55 - 59	22,850	22,093	20,139	20,792	24,868	29,452	33,812	32,153
	60 - 64	21,604	21,285	20,422	18,897	19,463	23,280	27,577	31,666
	65 - 69	19,086	19,309	19,164	18,611	17,162	17,676	21,142	25,043
	<u>70 +</u>	<u>36,195</u>	<u>39,885</u>	<u>42,822</u>	<u>45,131</u>	<u>45,518</u>	<u>44,204</u>	<u>43,476</u>	<u>45,996</u>
	Total, 15 & older	370,815	379,420	365,586	371,409	367,369	358,366	342,429	326,374
Both Sexes	15 - 19	83,680	72,764	69,108	71,913	67,653	59,570	47,376	47,559
	20 - 24	94,324	80,216	64,129	65,384	65,780	61,292	53,115	41,474
	25 - 29	88,468	89,181	67,093	58,564	57,599	57,651	53,029	44,943
	30 - 34	71,711	84,801	78,853	64,276	54,239	53,230	53,006	48,123
	35 - 44	103,831	125,496	141,559	152,355	134,310	109,063	98,488	96,942
	45 - 54	89,069	88,132	95,727	113,916	133,022	140,367	123,148	99,240
	55 - 59	46,383	43,882	40,308	41,643	49,081	57,883	66,945	64,796
	60 - 64	44,449	43,614	41,024	38,230	39,372	46,394	54,708	63,270
	65 - 69	39,927	40,880	40,092	38,072	35,378	36,434	42,920	50,606
	<u>70 +</u>	<u>80,564</u>	<u>91,557</u>	<u>101,461</u>	<u>108,228</u>	<u>109,577</u>	<u>106,860</u>	<u>104,914</u>	<u>109,238</u>
	Total, 15 & older	742,406	760,523	739,354	752,581	746,011	728,745	697,650	666,194

Non-Indian Population
Total Population: Zero Net Migration
Indian Population: Ten Year Migration Pattern

		As of July 1st:							
		1983	1988	1993	1998	2003	2008	2013	2018
Female	15 - 19	40,814	35,548	33,712	34,945	33,615	30,922	25,465	24,710
	20 - 24	46,064	38,848	31,128	31,719	34,501	33,056	30,249	24,766
	25 - 29	43,201	43,536	33,016	28,682	31,445	34,178	32,641	29,741
	30 - 34	34,793	41,248	39,135	32,072	28,402	31,141	33,826	32,206
	35 - 44	51,096	60,943	69,178	75,362	69,807	59,616	58,634	63,951
	45 - 54	44,035	43,619	47,261	55,650	66,935	73,917	68,282	58,132
	55 - 59	23,533	21,789	20,169	20,851	24,612	29,626	35,582	36,405
	60 - 64	22,845	22,329	20,602	19,333	20,307	23,971	28,855	34,658
	65 - 69	20,841	21,571	20,928	19,461	18,677	19,619	23,158	27,877
	70 +	44,369	51,672	58,639	63,097	68,302	70,224	71,355	75,014
Total, 15 & older		371,591	381,103	373,768	381,172	396,604	406,269	408,047	407,460
Male	15 - 19	42,866	37,216	35,396	36,968	35,534	32,538	26,554	25,333
	20 - 24	48,260	41,368	33,001	33,665	36,539	35,042	31,971	26,008
	25 - 29	45,267	45,645	34,077	29,882	33,312	36,136	34,595	31,478
	30 - 34	36,918	43,553	39,718	32,204	29,449	32,836	35,589	33,979
	35 - 44	52,735	64,553	72,381	76,993	70,014	60,613	61,212	67,222
	45 - 54	45,034	44,513	48,466	58,266	69,657	75,060	68,160	58,934
	55 - 59	22,850	22,093	20,139	20,792	25,235	30,628	36,158	35,840
	60 - 64	21,604	21,285	20,422	18,897	20,115	24,416	29,643	35,009
	65 - 69	19,086	19,309	19,164	18,611	17,540	18,673	22,667	27,522
	70 +	36,195	39,885	42,822	45,131	48,970	50,126	51,343	55,572
Total, 15 & older		370,815	379,420	365,586	371,409	386,365	396,067	397,892	396,898
Both Sexes	15 - 19	83,680	72,764	69,108	71,913	69,150	63,460	52,019	50,043
	20 - 24	94,324	80,216	64,129	65,384	71,040	68,098	62,219	50,774
	25 - 29	88,468	89,181	67,093	58,564	64,756	70,314	67,237	61,219
	30 - 34	71,711	84,801	78,853	64,276	57,852	63,977	69,415	66,185
	35 - 44	103,831	125,496	141,559	152,355	139,821	120,229	119,845	131,174
	45 - 54	89,069	88,132	95,727	113,916	136,591	148,976	136,443	117,066
	55 - 59	46,383	43,882	40,308	41,643	49,848	60,253	71,740	72,246
	60 - 64	44,449	43,614	41,024	38,230	40,422	48,387	58,498	69,667
	65 - 69	39,927	40,880	40,092	38,072	36,217	38,291	45,825	55,399
	70 +	80,564	91,557	101,461	108,228	117,272	120,350	122,698	130,587
Total, 15 & older		742,406	760,523	739,354	752,581	782,969	802,335	805,939	804,357

Non-Indian Population
Total Population: Five Year Migration Pattern
Indian Population: Ten Year Migration Pattern

As of July 1st:

		<u>1983</u>	<u>1988</u>	<u>1993</u>	<u>1998</u>	<u>2003</u>	<u>2008</u>	<u>2013</u>	<u>2018</u>
Female	15 - 19	40,814	35,548	33,712	34,945	33,701	30,970	26,132	28,003
	20 - 24	46,064	38,848	31,128	31,719	32,907	31,537	28,740	24,049
	25 - 29	43,201	43,536	33,016	28,682	29,253	30,276	28,799	25,979
	30 - 34	34,793	41,248	39,135	32,072	27,905	28,444	29,396	27,832
	35 - 44	51,096	60,943	69,178	75,362	68,822	57,810	54,223	55,583
	45 - 54	44,035	43,619	47,261	55,650	65,826	71,606	65,126	54,452
	55 - 59	23,533	21,789	20,169	20,851	24,457	28,894	34,170	34,433
	60 - 64	22,845	22,329	20,602	19,333	19,995	23,452	27,703	32,757
	65 - 69	20,841	21,571	20,928	19,461	18,249	18,872	22,132	26,138
	<u>70 +</u>	<u>44,369</u>	<u>51,672</u>	<u>58,639</u>	<u>63,097</u>	<u>64,090</u>	<u>62,716</u>	<u>61,538</u>	<u>63,553</u>
	Total, 15 & older	371,591	381,103	373,768	381,172	385,206	384,577	377,960	372,779
Male	15 - 19	42,866	37,216	35,396	36,968	35,770	32,727	27,313	29,363
	20 - 24	48,260	41,368	33,001	33,665	35,183	33,912	30,835	25,609
	25 - 29	45,267	45,645	34,077	29,882	30,521	31,819	30,487	27,452
	30 - 34	36,918	43,553	39,718	32,204	28,224	28,809	29,967	28,557
	35 - 44	52,735	64,553	72,381	76,993	68,800	57,689	54,384	55,979
	45 - 54	45,034	44,513	48,466	58,266	68,837	73,193	65,267	54,588
	55 - 59	22,850	22,093	20,139	20,792	25,088	30,070	35,094	34,248
	60 - 64	21,604	21,285	20,422	18,897	19,512	23,545	28,226	32,949
	65 - 69	19,086	19,309	19,164	18,611	17,222	17,783	21,458	25,724
	<u>70 +</u>	<u>36,195</u>	<u>39,885</u>	<u>42,822</u>	<u>45,131</u>	<u>45,802</u>	<u>44,687</u>	<u>44,097</u>	<u>46,874</u>
	Total, 15 & older	370,815	379,420	365,586	371,409	374,958	374,235	367,129	361,342
Both Sexes	15 - 19	83,680	72,764	69,108	71,913	69,471	63,696	53,445	57,365
	20 - 24	94,324	80,216	64,129	65,384	68,090	65,450	59,576	49,658
	25 - 29	88,468	89,181	67,093	58,564	59,775	62,096	59,286	53,431
	30 - 34	71,711	84,801	78,853	64,276	56,129	57,254	59,363	56,388
	35 - 44	103,831	125,496	141,559	152,355	137,622	115,499	108,607	111,561
	45 - 54	89,069	88,132	95,727	113,916	134,663	144,799	130,393	109,040
	55 - 59	46,383	43,882	40,308	41,643	49,545	58,964	69,264	68,681
	60 - 64	44,449	43,614	41,024	38,230	39,508	46,997	55,930	65,706
	65 - 69	39,927	40,880	40,092	38,072	35,471	36,654	43,590	51,863
	<u>70 +</u>	<u>80,564</u>	<u>91,557</u>	<u>101,461</u>	<u>108,228</u>	<u>109,892</u>	<u>107,403</u>	<u>105,635</u>	<u>110,427</u>
	Total, 15 & older	742,406	760,523	739,354	752,581	760,165	758,813	745,088	734,121

Non-Indian Population
Total Population: Ten Year Migration Pattern
Indian Population: Ten Year Migration Pattern

As of July 1st:

		<u>1983</u>	<u>1988</u>	<u>1993</u>	<u>1998</u>	<u>2003</u>	<u>2008</u>	<u>2013</u>	<u>2018</u>
Female	15 - 19	40,814	35,548	33,712	34,945	33,028	29,477	24,069	24,463
	20 - 24	46,064	38,848	31,128	31,719	31,856	29,854	26,326	21,220
	25 - 29	43,201	43,536	33,016	28,682	28,353	28,370	26,309	22,852
	30 - 34	34,793	41,248	39,135	32,072	27,050	26,707	26,649	24,521
	35 - 44	51,096	60,943	69,178	75,362	67,456	55,135	50,010	49,506
	45 - 54	44,035	43,619	47,261	55,650	65,200	69,819	62,213	50,515
	55 - 59	23,533	21,789	20,169	20,851	24,244	28,483	33,242	32,854
	60 - 64	22,845	22,329	20,602	19,333	19,921	23,161	27,207	31,746
	65 - 69	20,841	21,571	20,928	19,461	18,203	18,753	21,800	25,602
	<u>70 +</u>	<u>44,369</u>	<u>51,672</u>	<u>58,639</u>	<u>63,097</u>	<u>64,034</u>	<u>62,594</u>	<u>61,344</u>	<u>63,133</u>
	Total, 15 & older	371,591	381,103	373,768	381,172	379,344	372,352	359,168	346,411
Male	15 - 19	42,866	37,216	35,396	36,968	35,017	31,295	25,360	25,905
	20 - 24	48,260	41,368	33,001	33,665	34,155	32,174	28,491	22,904
	25 - 29	45,267	45,645	34,077	29,882	29,386	29,697	27,727	24,189
	30 - 34	36,918	43,553	39,718	32,204	27,431	26,936	27,122	25,112
	35 - 44	52,735	64,553	72,381	76,993	67,131	54,676	49,744	49,339
	45 - 54	45,034	44,513	48,466	58,266	67,880	70,798	61,553	49,905
	55 - 59	22,850	22,093	20,139	20,792	24,863	29,457	33,824	32,246
	60 - 64	21,604	21,285	20,422	18,897	19,463	23,275	27,581	31,676
	65 - 69	19,086	19,309	19,164	18,611	17,162	17,676	21,138	25,048
	<u>70 +</u>	<u>36,195</u>	<u>39,885</u>	<u>42,822</u>	<u>45,131</u>	<u>45,516</u>	<u>44,200</u>	<u>43,469</u>	<u>45,981</u>
	Total, 15 & older	370,815	379,420	365,586	371,409	368,004	360,184	346,009	332,305
Both Sexes	15 - 19	83,680	72,764	69,108	71,913	68,045	60,772	49,430	50,368
	20 - 24	94,324	80,216	64,129	65,384	66,011	62,027	54,817	44,125
	25 - 29	88,468	89,181	67,093	58,564	57,739	58,066	54,035	47,040
	30 - 34	71,711	84,801	78,853	64,276	54,481	53,643	53,771	49,633
	35 - 44	103,831	125,496	141,559	152,355	134,587	109,811	99,753	98,845
	45 - 54	89,069	88,132	95,727	113,916	133,080	140,617	123,766	100,420
	55 - 59	46,383	43,882	40,308	41,643	49,106	57,940	67,067	65,099
	60 - 64	44,449	43,614	41,024	38,230	39,384	46,435	54,787	63,422
	65 - 69	39,927	40,880	40,092	38,072	35,365	36,429	42,938	50,650
	<u>70 +</u>	<u>80,564</u>	<u>91,557</u>	<u>101,461</u>	<u>108,228</u>	<u>109,550</u>	<u>106,794</u>	<u>104,813</u>	<u>109,114</u>
	Total, 15 & older	742,406	760,523	739,354	752,581	747,349	732,536	705,177	678,717

Potential Labour Force Detail Age and Sex Breakdown

All of the tables that follow are based on the population forecast that assumes a five year migration pattern for the overall population and a ten year migration pattern for Registered Indians.

**Non-Indian Potential Labour Force
Participation Rates: Constant at 1998 Values**

Annual Averages:

		<u>1983</u>	<u>1988</u>	<u>1993</u>	<u>1998</u>	<u>2003</u>	<u>2008</u>	<u>2013</u>	<u>2018</u>
Female	15 - 19	19,876	17,312	16,418	17,018	16,412	15,082	12,726	13,637
	20 - 24	32,521	27,427	21,976	22,394	23,232	22,265	20,291	16,979
	25 - 29	34,042	34,306	26,017	22,601	23,052	23,858	22,693	20,471
	30 - 34	27,139	32,173	30,525	25,016	21,766	22,187	22,929	21,709
	35 - 44	43,023	51,314	58,248	63,455	57,948	48,676	45,656	46,801
	45 - 54	35,492	35,157	38,092	44,854	53,056	57,714	52,492	43,888
	55 - 59	15,061	13,945	12,908	13,345	15,653	18,492	21,869	22,037
	60 - 64	9,092	8,887	8,200	7,695	7,958	9,334	11,026	13,037
	65 - 69	2,355	2,438	2,365	2,199	2,062	2,132	2,501	2,954
	<u>70 +</u>	<u>976</u>	<u>1,137</u>	<u>1,290</u>	<u>1,388</u>	<u>1,410</u>	<u>1,380</u>	<u>1,354</u>	<u>1,398</u>
	Total, 15 & older	219,578	224,096	216,039	219,965	222,549	221,121	213,537	202,911
Male	15 - 19	24,048	20,878	19,857	20,739	20,067	18,360	15,322	16,472
	20 - 24	40,201	34,460	27,490	28,043	29,308	28,249	25,686	21,332
	25 - 29	41,419	41,765	31,180	27,342	27,927	29,115	27,896	25,119
	30 - 34	34,444	40,635	37,057	30,046	26,333	26,879	27,959	26,643
	35 - 44	50,046	61,261	68,690	73,066	65,291	54,747	51,610	53,124
	45 - 54	41,026	40,551	44,153	53,080	62,710	66,679	59,458	49,730
	55 - 59	18,120	17,520	15,970	16,488	19,894	23,846	27,830	27,159
	60 - 64	13,351	13,154	12,621	11,678	12,059	14,551	17,444	20,362
	65 - 69	7,253	7,337	7,282	7,072	6,544	6,757	8,154	9,775
	<u>70 +</u>	<u>5,248</u>	<u>5,783</u>	<u>6,209</u>	<u>6,544</u>	<u>6,641</u>	<u>6,480</u>	<u>6,394</u>	<u>6,797</u>
	Total, 15 & older	275,156	283,345	270,509	274,100	276,775	275,662	267,754	256,513
Both Sexes	15 - 19	43,924	38,190	36,275	37,757	36,479	33,442	28,049	30,110
	20 - 24	72,722	61,886	49,466	50,437	52,540	50,514	45,976	38,311
	25 - 29	75,462	76,072	57,197	49,943	50,979	52,972	50,589	45,590
	30 - 34	61,583	72,808	67,582	55,062	48,099	49,066	50,888	48,352
	35 - 44	93,068	112,575	126,937	136,521	123,239	103,423	97,266	99,924
	45 - 54	76,518	75,708	82,245	97,934	115,766	124,393	111,950	93,618
	55 - 59	33,181	31,465	28,878	29,833	35,547	42,338	49,698	49,196
	60 - 64	22,444	22,041	20,820	19,373	20,017	23,885	28,470	33,400
	65 - 69	9,608	9,775	9,647	9,271	8,606	8,890	10,655	12,729
	<u>70 +</u>	<u>6,224</u>	<u>6,920</u>	<u>7,499</u>	<u>7,932</u>	<u>8,051</u>	<u>7,859</u>	<u>7,748</u>	<u>8,195</u>
	Total, 15 & older	494,734	507,440	486,548	494,064	499,323	496,783	481,290	459,425

Non-Indian Potential Labour Force
Participation Rates: Increasing at Values Specified in Appendix 3

		Annual Averages:							
		1983	1988	1993	1998	2003	2008	2013	2018
Female	15 - 19	21,142	19,800	17,159	17,018	16,522	15,284	12,981	14,001
	20 - 24	34,179	29,291	22,443	22,394	23,183	22,171	20,161	16,835
	25 - 29	29,506	32,260	25,620	22,601	23,505	24,796	24,033	22,082
	30 - 34	22,755	32,050	30,486	25,016	22,184	23,040	24,252	23,379
	35 - 44	36,074	47,109	58,732	63,455	58,946	50,353	48,015	50,025
	45 - 54	28,491	30,359	37,809	44,854	54,603	61,080	57,083	49,007
	55 - 59	10,708	11,526	11,698	13,345	16,019	19,359	23,406	24,103
	60 - 64	7,013	7,748	7,582	7,695	8,218	9,944	12,106	14,741
	65 - 69	1,897	2,287	2,700	2,199	2,149	2,312	2,816	3,450
	70 +	1,020	1,550	1,876	1,388	1,586	1,725	1,862	2,097
Total, 15 & older		192,784	213,980	216,106	219,965	226,916	230,062	226,715	219,719
Male	15 - 19	26,834	22,144	20,282	20,739	20,416	18,998	16,121	17,618
	20 - 24	43,000	35,494	26,797	28,043	29,457	28,537	26,079	21,767
	25 - 29	43,411	42,724	30,874	27,342	28,339	29,974	29,131	26,601
	30 - 34	35,404	41,724	37,732	30,046	26,665	27,556	29,016	27,986
	35 - 44	50,942	61,648	68,834	73,066	65,704	55,439	52,589	54,467
	45 - 54	42,242	41,575	44,783	53,080	63,399	68,143	61,416	51,913
	55 - 59	20,039	18,183	16,675	16,488	19,625	23,199	26,698	25,686
	60 - 64	14,777	13,729	12,151	11,678	11,727	13,750	16,004	18,122
	65 - 69	6,795	6,237	6,324	7,072	6,200	6,046	6,867	7,717
	70 +	5,972	5,823	7,537	6,544	6,698	6,591	6,559	7,031
Total, 15 & older		289,416	289,279	271,988	274,100	278,229	278,234	270,480	258,909
Both Sexes	15 - 19	47,976	41,944	37,441	37,757	36,938	34,281	29,103	31,619
	20 - 24	77,179	64,785	49,240	50,437	52,640	50,708	46,240	38,602
	25 - 29	72,917	74,984	56,494	49,943	51,844	54,770	53,163	48,683
	30 - 34	58,159	73,773	68,218	55,062	48,849	50,596	53,268	51,364
	35 - 44	87,016	108,757	127,566	136,521	124,650	105,792	100,604	104,492
	45 - 54	70,733	71,934	82,591	97,934	118,001	129,223	118,499	100,920
	55 - 59	30,747	29,709	28,373	29,833	35,644	42,558	50,104	49,789
	60 - 64	21,791	21,477	19,733	19,373	19,945	23,694	28,111	32,863
	65 - 69	8,691	8,523	9,024	9,271	8,349	8,358	9,683	11,168
	70 +	6,993	7,373	9,413	7,932	8,285	8,316	8,421	9,128
Total, 15 & older		482,201	503,260	488,094	494,064	505,145	508,296	497,195	478,628

Indian Potential Labour Force
Participation Rates: Constant at Estimated 1998 Values

		Annual Averages:							
		<u>1983</u>	<u>1988</u>	<u>1993</u>	<u>1998</u>	<u>2003</u>	<u>2008</u>	<u>2013</u>	<u>2018</u>
Female	15 - 19	548	626	640	784	1,058	1,340	1,438	1,431
	20 - 24	691	843	931	1,025	1,223	1,651	2,089	2,242
	25 - 29	1,039	1,552	1,839	2,172	2,354	2,807	3,790	4,797
	30 - 34	723	1,111	1,562	1,980	2,253	2,442	2,912	3,932
	35 - 44	978	1,508	2,206	3,165	4,134	4,905	5,443	6,201
	45 - 54	655	848	1,128	1,591	2,299	3,248	4,240	5,028
	55 - 59	193	246	312	399	528	761	1,101	1,529
	60 - 64	83	118	158	191	240	318	459	664
	65 - 69	19	23	35	42	52	66	87	126
	<u>70 +</u>	<u>8</u>	<u>9</u>	<u>11</u>	<u>13</u>	<u>17</u>	<u>22</u>	<u>27</u>	<u>35</u>
Total, 15 & older		4,936	6,885	8,822	11,363	14,159	17,558	21,586	25,985
Male	15 - 19	792	916	959	1,209	1,592	2,077	2,140	2,199
	20 - 24	990	1,210	1,385	1,521	1,875	2,469	3,222	3,320
	25 - 29	1,365	1,853	2,300	2,724	2,936	3,619	4,767	6,220
	30 - 34	1,039	1,401	1,958	2,512	2,904	3,130	3,858	5,082
	35 - 44	1,425	1,880	2,593	3,667	4,837	5,803	6,468	7,485
	45 - 54	909	1,063	1,379	1,868	2,580	3,591	4,734	5,676
	55 - 59	288	366	404	510	658	920	1,259	1,774
	60 - 64	168	198	273	287	364	469	656	897
	65 - 69	86	92	111	153	161	204	262	367
	<u>70 +</u>	<u>58</u>	<u>64</u>	<u>72</u>	<u>81</u>	<u>102</u>	<u>119</u>	<u>144</u>	<u>180</u>
Total, 15 & older		7,119	9,043	11,434	14,533	18,009	22,403	27,512	33,201
Both Sexes	15 - 19	1,340	1,542	1,599	1,993	2,650	3,417	3,578	3,630
	20 - 24	1,681	2,053	2,316	2,546	3,098	4,120	5,312	5,563
	25 - 29	2,404	3,406	4,140	4,896	5,290	6,427	8,557	11,017
	30 - 34	1,762	2,512	3,520	4,492	5,157	5,572	6,771	9,013
	35 - 44	2,402	3,388	4,798	6,832	8,972	10,708	11,911	13,686
	45 - 54	1,564	1,912	2,507	3,460	4,879	6,839	8,974	10,704
	55 - 59	481	612	716	909	1,185	1,682	2,360	3,304
	60 - 64	251	316	431	479	604	787	1,115	1,561
	65 - 69	105	115	146	195	213	269	349	493
	<u>70 +</u>	<u>66</u>	<u>73</u>	<u>82</u>	<u>95</u>	<u>119</u>	<u>141</u>	<u>172</u>	<u>215</u>
Total, 15 & older		12,054	15,927	20,256	25,896	32,167	39,962	49,097	59,186

Indian Potential Labour Force
Participation Rates: Partial Parity (constant prior to 1998)

		Annual Averages:							
		1983	1988	1993	1998	2003	2008	2013	2018
Female	15 - 19	548	626	640	784	1,502	2,462	3,244	3,828
	20 - 24	691	843	931	1,025	1,658	2,826	4,321	5,436
	25 - 29	1,039	1,552	1,839	2,172	2,508	3,175	4,535	6,055
	30 - 34	723	1,111	1,562	1,980	2,369	2,693	3,363	4,742
	35 - 44	978	1,508	2,206	3,165	4,289	5,272	6,054	7,131
	45 - 54	655	848	1,128	1,591	2,352	3,400	4,538	5,499
	55 - 59	193	246	312	399	533	775	1,131	1,587
	60 - 64	83	118	158	191	240	318	459	664
	65 - 69	19	23	35	42	52	66	87	126
	70 +	8	9	11	13	17	22	27	35
Total, 15 & older		4,936	6,885	8,822	11,363	15,521	21,010	27,760	35,102
Male	15 - 19	792	916	959	1,209	2,026	3,211	3,893	4,600
	20 - 24	990	1,210	1,385	1,521	2,310	3,615	5,464	6,401
	25 - 29	1,365	1,853	2,300	2,724	3,052	3,904	5,329	7,197
	30 - 34	1,039	1,401	1,958	2,512	2,993	3,323	4,215	5,709
	35 - 44	1,425	1,880	2,593	3,667	4,946	6,064	6,904	8,157
	45 - 54	909	1,063	1,379	1,868	2,616	3,692	4,933	5,994
	55 - 59	288	366	404	510	661	931	1,280	1,814
	60 - 64	168	198	273	287	364	469	656	897
	65 - 69	86	92	111	153	161	204	262	367
	70 +	58	64	72	81	103	121	147	184
Total, 15 & older		7,119	9,043	11,434	14,533	19,232	25,532	33,082	41,320
Both Sexes	15 - 19	1,340	1,542	1,599	1,993	3,528	5,673	7,137	8,428
	20 - 24	1,681	2,053	2,316	2,546	3,968	6,441	9,785	11,837
	25 - 29	2,404	3,406	4,140	4,896	5,560	7,079	9,864	13,252
	30 - 34	1,762	2,512	3,520	4,492	5,363	6,017	7,578	10,451
	35 - 44	2,402	3,388	4,798	6,832	9,235	11,336	12,958	15,287
	45 - 54	1,564	1,912	2,507	3,460	4,969	7,092	9,471	11,493
	55 - 59	481	612	716	909	1,194	1,706	2,412	3,401
	60 - 64	251	316	431	479	604	787	1,115	1,561
	65 - 69	105	115	146	195	213	269	349	493
	70 +	66	73	82	95	120	143	174	219
Total, 15 & older		12,054	15,927	20,256	25,896	34,753	46,542	60,843	76,422

**Indian Potential Labour Force
Participation Rates: Full Parity (constant prior to 1998)**

		Annual Averages:							
		1983	1988	1993	1998	2003	2008	2013	2018
Female	15 - 19	548	626	640	784	1,502	2,462	3,244	3,828
	20 - 24	691	843	931	1,025	1,735	3,033	4,715	6,000
	25 - 29	1,039	1,552	1,839	2,172	2,574	3,333	4,855	6,594
	30 - 34	723	1,111	1,562	1,980	2,464	2,899	3,731	5,405
	35 - 44	978	1,508	2,206	3,165	4,522	5,824	6,972	8,525
	45 - 54	655	848	1,128	1,591	2,514	3,856	5,431	6,912
	55 - 59	193	246	312	399	577	904	1,410	2,102
	60 - 64	83	118	158	191	263	378	588	913
	65 - 69	19	23	35	42	57	78	112	173
	70 +	8	9	11	13	19	26	35	49
Total, 15 & older		4,936	6,885	8,822	11,363	16,227	22,793	31,093	40,500
Male	15 - 19	792	916	959	1,209	2,026	3,211	3,893	4,600
	20 - 24	990	1,210	1,385	1,521	2,386	3,817	5,860	6,944
	25 - 29	1,365	1,853	2,300	2,724	3,101	4,025	5,570	7,616
	30 - 34	1,039	1,401	1,958	2,512	3,067	3,481	4,507	6,222
	35 - 44	1,425	1,880	2,593	3,667	5,109	6,455	7,557	9,164
	45 - 54	909	1,063	1,379	1,868	2,725	3,994	5,530	6,950
	55 - 59	288	366	404	510	695	1,024	1,471	2,173
	60 - 64	168	198	273	287	384	521	766	1,098
	65 - 69	86	92	111	153	170	226	306	449
	70 +	58	64	72	81	108	133	168	220
Total, 15 & older		7,119	9,043	11,434	14,533	19,770	26,888	35,628	45,436
Both Sexes	15 - 19	1,340	1,542	1,599	1,993	3,528	5,673	7,137	8,428
	20 - 24	1,681	2,053	2,316	2,546	4,121	6,851	10,575	12,944
	25 - 29	2,404	3,406	4,140	4,896	5,675	7,359	10,424	14,210
	30 - 34	1,762	2,512	3,520	4,492	5,531	6,380	8,238	11,627
	35 - 44	2,402	3,388	4,798	6,832	9,630	12,278	14,529	17,689
	45 - 54	1,564	1,912	2,507	3,460	5,239	7,850	10,962	13,861
	55 - 59	481	612	716	909	1,272	1,928	2,881	4,275
	60 - 64	251	316	431	479	647	899	1,355	2,011
	65 - 69	105	115	146	195	227	304	418	622
	70 +	66	73	82	95	127	159	204	269
Total, 15 & older		12,054	15,927	20,256	25,896	35,997	49,680	66,721	85,936

Total Potential Labour Force
Non-Indian Participation Rates: Constant at 1998 Values
Indian Participation Rates: Constant at 1998 Values

Annual Averages:

		<u>1983</u>	<u>1988</u>	<u>1993</u>	<u>1998</u>	<u>2003</u>	<u>2008</u>	<u>2013</u>	<u>2018</u>
Female	15 - 19	20,425	17,938	17,058	17,802	17,471	16,422	14,164	15,068
	20 - 24	33,212	28,270	22,907	23,419	24,455	23,916	22,380	19,221
	25 - 29	35,082	35,859	27,856	24,773	25,405	26,665	26,483	25,268
	30 - 34	27,861	33,284	32,087	26,996	24,019	24,628	25,841	25,640
	35 - 44	44,000	52,822	60,453	66,620	62,083	53,581	51,098	53,002
	45 - 54	36,147	36,005	39,220	46,445	55,354	60,962	56,732	48,916
	55 - 59	15,254	14,191	13,221	13,743	16,180	19,253	22,969	23,566
	60 - 64	9,175	9,005	8,358	7,886	8,199	9,652	11,485	13,701
	65 - 69	2,374	2,460	2,400	2,242	2,115	2,198	2,588	3,079
	<u>70 +</u>	<u>984</u>	<u>1,146</u>	<u>1,301</u>	<u>1,401</u>	<u>1,427</u>	<u>1,401</u>	<u>1,381</u>	<u>1,434</u>
	Total, 15 & older	224,514	230,980	224,861	231,327	236,707	238,679	235,122	228,896
Male	15 - 19	24,839	21,794	20,816	21,948	21,659	20,437	17,463	18,672
	20 - 24	41,190	35,670	28,875	29,564	31,182	30,719	28,908	24,652
	25 - 29	42,784	43,619	33,481	30,066	30,864	32,734	32,663	31,339
	30 - 34	35,483	42,036	39,015	32,559	29,237	30,009	31,818	31,725
	35 - 44	51,470	63,140	71,282	76,733	70,128	60,550	58,079	60,609
	45 - 54	41,935	41,615	45,531	54,949	65,291	70,271	64,192	55,406
	55 - 59	18,408	17,886	16,374	16,998	20,552	24,766	29,089	28,933
	60 - 64	13,519	13,352	12,893	11,966	12,422	15,020	18,100	21,260
	65 - 69	7,339	7,430	7,393	7,225	6,705	6,961	8,416	10,142
	<u>70 +</u>	<u>5,306</u>	<u>5,847</u>	<u>6,281</u>	<u>6,625</u>	<u>6,743</u>	<u>6,599</u>	<u>6,538</u>	<u>6,976</u>
	Total, 15 & older	282,275	292,387	281,943	288,633	294,783	298,065	295,265	289,714
Both Sexes	15 - 19	45,264	39,732	37,874	39,750	39,130	36,859	31,627	33,740
	20 - 24	74,402	63,940	51,782	52,983	55,637	54,634	51,288	43,873
	25 - 29	77,866	79,477	61,337	54,839	56,269	59,399	59,146	56,607
	30 - 34	63,345	75,320	71,103	59,555	53,256	54,638	57,659	57,365
	35 - 44	95,471	115,962	131,736	143,354	132,211	114,131	109,177	113,611
	45 - 54	78,082	77,620	84,752	101,394	120,645	131,232	120,923	104,322
	55 - 59	33,662	32,076	29,594	30,742	36,732	44,019	52,058	52,500
	60 - 64	22,694	22,357	21,251	19,851	20,621	24,672	29,585	34,961
	65 - 69	9,713	9,890	9,793	9,466	8,820	9,159	11,004	13,222
	<u>70 +</u>	<u>6,290</u>	<u>6,993</u>	<u>7,582</u>	<u>8,027</u>	<u>8,170</u>	<u>8,001</u>	<u>7,920</u>	<u>8,410</u>
	Total, 15 & older	506,788	523,367	506,803	519,960	531,491	536,744	530,388	518,611

Total Potential Labour Force
Non-Indian Participation Rates: Constant at 1998 Values
Indian Participation Rates: Partial Parity (constant prior to 1998)

		Annual Averages:						
		1983	1988	1993	1998	2003	2008	2013
Female	15 - 19	20,425	17,938	17,058	17,802	17,914	17,544	15,971
	20 - 24	33,212	28,270	22,907	23,419	24,890	25,091	24,612
	25 - 29	35,082	35,859	27,856	24,773	25,559	27,033	27,228
	30 - 34	27,861	33,284	32,087	26,996	24,135	24,880	26,292
	35 - 44	44,000	52,822	60,453	66,620	62,238	53,949	51,710
	45 - 54	36,147	36,005	39,220	46,445	55,408	61,114	57,030
	55 - 59	15,254	14,191	13,221	13,743	16,185	19,268	23,000
	60 - 64	9,175	9,005	8,358	7,886	8,199	9,652	11,485
	65 - 69	2,374	2,460	2,400	2,242	2,115	2,198	2,588
	70 +	984	1,146	1,301	1,401	1,427	1,401	1,381
	Total, 15 & older	224,514	230,980	224,861	231,327	238,070	242,130	241,297
Male	15 - 19	24,839	21,794	20,816	21,948	22,093	21,570	19,215
	20 - 24	41,190	35,670	28,875	29,564	31,617	31,864	31,150
	25 - 29	42,784	43,619	33,481	30,066	30,979	33,018	33,225
	30 - 34	35,483	42,036	39,015	32,559	29,326	30,202	32,175
	35 - 44	51,470	63,140	71,282	76,733	70,237	60,811	58,514
	45 - 54	41,935	41,615	45,531	54,949	65,327	70,371	64,391
	55 - 59	18,408	17,886	16,374	16,998	20,556	24,776	29,110
	60 - 64	13,519	13,352	12,893	11,966	12,422	15,020	18,100
	65 - 69	7,339	7,430	7,393	7,225	6,705	6,961	8,416
	70 +	5,306	5,847	6,281	6,625	6,744	6,600	6,541
	Total, 15 & older	282,275	292,387	281,943	288,633	296,006	301,194	300,836
Both Sexes	15 - 19	45,264	39,732	37,874	39,750	40,007	39,115	35,186
	20 - 24	74,402	63,940	51,782	52,983	56,508	56,955	55,762
	25 - 29	77,866	79,477	61,337	54,839	56,538	60,052	60,453
	30 - 34	63,345	75,320	71,103	59,555	53,461	55,082	58,466
	35 - 44	95,471	115,962	131,736	143,354	132,475	114,759	110,224
	45 - 54	78,082	77,620	84,752	101,394	120,735	131,485	121,420
	55 - 59	33,662	32,076	29,594	30,742	36,741	44,044	52,110
	60 - 64	22,694	22,357	21,251	19,851	20,621	24,672	29,585
	65 - 69	9,713	9,890	9,793	9,466	8,820	9,159	11,004
	70 +	6,290	6,993	7,582	8,027	8,171	8,002	7,922
	Total, 15 & older	506,788	523,367	506,803	519,960	534,076	543,325	542,133

Total Potential Labour Force
Non-Indian Participation Rates: Constant at 1998 Values
Indian Participation Rates: Full Parity (constant prior to 1998)

Annual Averages:

		<u>1983</u>	<u>1988</u>	<u>1993</u>	<u>1998</u>	<u>2003</u>	<u>2008</u>	<u>2013</u>	<u>2018</u>
Female	15 - 19	20,425	17,938	17,058	17,802	17,914	17,544	15,971	17,465
	20 - 24	33,212	28,270	22,907	23,419	24,967	25,299	25,005	22,978
	25 - 29	35,082	35,859	27,856	24,773	25,626	27,191	27,548	27,065
	30 - 34	27,861	33,284	32,087	26,996	24,230	25,086	26,660	27,113
	35 - 44	44,000	52,822	60,453	66,620	62,470	54,500	52,628	55,326
	45 - 54	36,147	36,005	39,220	46,445	55,570	61,570	57,923	50,800
	55 - 59	15,254	14,191	13,221	13,743	16,230	19,396	23,279	24,139
	60 - 64	9,175	9,005	8,358	7,886	8,221	9,712	11,614	13,950
	65 - 69	2,374	2,460	2,400	2,242	2,119	2,211	2,612	3,126
	70 +	<u>984</u>	<u>1,146</u>	<u>1,301</u>	<u>1,401</u>	<u>1,429</u>	<u>1,406</u>	<u>1,389</u>	<u>1,447</u>
	Total, 15 & older	224,514	230,980	224,861	231,327	238,775	243,914	244,630	243,411
Male	15 - 19	24,839	21,794	20,816	21,948	22,093	21,570	19,215	21,072
	20 - 24	41,190	35,670	28,875	29,564	31,694	32,066	31,546	28,276
	25 - 29	42,784	43,619	33,481	30,066	31,028	33,140	33,466	32,735
	30 - 34	35,483	42,036	39,015	32,559	29,400	30,360	32,467	32,865
	35 - 44	51,470	63,140	71,282	76,733	70,400	61,201	59,167	62,288
	45 - 54	41,935	41,615	45,531	54,949	65,435	70,674	64,988	56,679
	55 - 59	18,408	17,886	16,374	16,998	20,589	24,869	29,301	29,332
	60 - 64	13,519	13,352	12,893	11,966	12,443	15,072	18,210	21,461
	65 - 69	7,339	7,430	7,393	7,225	6,714	6,984	8,460	10,225
	70 +	<u>5,306</u>	<u>5,847</u>	<u>6,281</u>	<u>6,625</u>	<u>6,749</u>	<u>6,613</u>	<u>6,563</u>	<u>7,017</u>
	Total, 15 & older	282,275	292,387	281,943	288,633	296,545	302,550	303,382	301,950
Both Sexes	15 - 19	45,264	39,732	37,874	39,750	40,007	39,115	35,186	38,538
	20 - 24	74,402	63,940	51,782	52,983	56,661	57,365	56,551	51,255
	25 - 29	77,866	79,477	61,337	54,839	56,654	60,331	61,014	59,800
	30 - 34	63,345	75,320	71,103	59,555	53,629	55,446	59,127	59,979
	35 - 44	95,471	115,962	131,736	143,354	132,870	115,701	111,795	117,614
	45 - 54	78,082	77,620	84,752	101,394	121,005	132,244	122,911	107,480
	55 - 59	33,662	32,076	29,594	30,742	36,819	44,265	52,579	53,471
	60 - 64	22,694	22,357	21,251	19,851	20,664	24,784	29,824	35,411
	65 - 69	9,713	9,890	9,793	9,466	8,833	9,194	11,073	13,351
	70 +	<u>6,290</u>	<u>6,993</u>	<u>7,582</u>	<u>8,027</u>	<u>8,178</u>	<u>8,018</u>	<u>7,952</u>	<u>8,464</u>
	Total, 15 & older	506,788	523,367	506,803	519,960	535,320	546,463	548,012	545,361

Total Potential Labour Force
Non-Indian Participation Rates: Increasing as per Appendix 3
Indian Participation Rates: Constant at 1990 Values

		Annual Averages:							
		1983	1988	1993	1998	2003	2008	2013	2018
Female	15 - 19	21,690	20,426	17,799	17,802	17,580	16,623	14,419	15,432
	20 - 24	34,870	30,135	23,374	23,419	24,406	23,821	22,251	19,077
	25 - 29	30,546	33,812	27,460	24,773	25,859	27,604	27,822	26,879
	30 - 34	23,477	33,161	32,048	26,996	24,437	25,482	27,164	27,310
	35 - 44	37,051	48,617	60,938	66,620	63,081	55,257	53,457	56,226
	45 - 54	29,146	31,207	38,937	46,445	56,901	64,327	61,323	54,035
	55 - 59	10,900	11,772	12,010	13,743	16,547	20,120	24,507	25,632
	60 - 64	7,096	7,867	7,740	7,886	8,459	10,262	12,566	15,405
	65 - 69	1,915	2,309	2,734	2,242	2,201	2,378	2,903	3,576
	70 +	<u>1,028</u>	<u>1,559</u>	<u>1,887</u>	<u>1,401</u>	<u>1,603</u>	<u>1,746</u>	<u>1,889</u>	<u>2,133</u>
	Total, 15 & older	197,720	220,865	224,928	231,327	241,074	247,621	248,301	245,704
Male	15 - 19	27,626	23,059	21,241	21,948	22,008	21,075	18,262	19,817
	20 - 24	43,989	36,704	28,182	29,564	31,332	31,007	29,301	25,088
	25 - 29	44,776	44,577	33,174	30,066	31,276	33,593	33,898	32,821
	30 - 34	36,443	43,124	39,691	32,559	29,568	30,686	32,874	33,067
	35 - 44	52,367	63,528	71,427	76,733	70,541	61,242	59,058	61,952
	45 - 54	43,151	42,638	46,161	54,949	65,979	71,734	66,150	57,589
	55 - 59	20,328	18,548	17,079	16,998	20,282	24,119	27,957	27,461
	60 - 64	14,945	13,927	12,424	11,966	12,091	14,219	16,660	19,019
	65 - 69	6,881	6,329	6,435	7,225	6,361	6,250	7,129	8,084
	70 +	<u>6,030</u>	<u>5,887</u>	<u>7,608</u>	<u>6,625</u>	<u>6,801</u>	<u>6,711</u>	<u>6,704</u>	<u>7,211</u>
	Total, 15 & older	296,535	298,322	283,422	288,633	296,238	300,637	297,992	292,110
Both Sexes	15 - 19	49,316	43,485	39,040	39,750	39,588	37,698	32,681	35,249
	20 - 24	78,860	66,838	51,556	52,983	55,738	54,828	51,552	44,165
	25 - 29	75,321	78,390	60,634	54,839	57,134	61,197	61,720	59,700
	30 - 34	59,920	76,285	71,739	59,555	54,006	56,168	60,038	60,377
	35 - 44	89,418	112,145	132,365	143,354	133,622	116,500	112,515	118,178
	45 - 54	72,297	73,846	85,098	101,394	122,880	136,062	127,473	111,624
	55 - 59	31,228	30,321	29,089	30,742	36,829	44,240	52,464	53,093
	60 - 64	22,041	21,793	20,164	19,851	20,549	24,481	29,226	34,424
	65 - 69	8,796	8,638	9,170	9,466	8,562	8,627	10,032	11,660
	70 +	<u>7,058</u>	<u>7,446</u>	<u>9,495</u>	<u>8,027</u>	<u>8,404</u>	<u>8,457</u>	<u>8,593</u>	<u>9,343</u>
	Total, 15 & older	494,255	519,187	508,350	519,960	537,312	548,258	546,293	537,814

Total Potential Labour Force
Non-Indian Participation Rates: Increasing as per Appendix 3
Indian Participation Rates: Partial Parity (constant prior to 1998)

		Annual Averages:							
		1983	1988	1993	1998	2003	2008	2013	2018
Female	15 - 19	21,690	20,426	17,799	17,802	18,024	17,745	16,226	17,829
	20 - 24	34,870	30,135	23,374	23,419	24,841	24,997	24,482	22,271
	25 - 29	30,546	33,812	27,460	24,773	26,013	27,972	28,568	28,137
	30 - 34	23,477	33,161	32,048	26,996	24,553	25,733	27,614	28,120
	35 - 44	37,051	48,617	60,938	66,620	63,236	55,625	54,069	57,155
	45 - 54	29,146	31,207	38,937	46,445	56,955	64,479	61,621	54,506
	55 - 59	10,900	11,772	12,010	13,743	16,552	20,135	24,538	25,690
	60 - 64	7,096	7,867	7,740	7,886	8,459	10,262	12,566	15,405
	65 - 69	1,915	2,309	2,734	2,242	2,201	2,378	2,903	3,576
	70 +	<u>1,028</u>	<u>1,559</u>	<u>1,887</u>	<u>1,401</u>	<u>1,603</u>	<u>1,746</u>	<u>1,889</u>	<u>2,133</u>
Total, 15 & older	197,720	220,865	224,928	231,327	242,437	251,072	254,476	254,821	
Male	15 - 19	27,626	23,059	21,241	21,948	22,442	22,209	20,014	22,217
	20 - 24	43,989	36,704	28,182	29,564	31,767	32,152	31,543	28,168
	25 - 29	44,776	44,577	33,174	30,066	31,391	33,877	34,460	33,798
	30 - 34	36,443	43,124	39,691	32,559	29,658	30,879	33,231	33,694
	35 - 44	52,367	63,528	71,427	76,733	70,650	61,503	59,493	62,624
	45 - 54	43,151	42,638	46,161	54,949	66,015	71,835	66,349	57,908
	55 - 59	20,328	18,548	17,079	16,998	20,286	24,130	27,978	27,501
	60 - 64	14,945	13,927	12,424	11,966	12,091	14,219	16,660	19,019
	65 - 69	6,881	6,329	6,435	7,225	6,361	6,250	7,129	8,084
	70 +	<u>6,030</u>	<u>5,887</u>	<u>7,608</u>	<u>6,625</u>	<u>6,801</u>	<u>6,712</u>	<u>6,706</u>	<u>7,215</u>
Total, 15 & older	296,535	298,322	283,422	286,633	297,461	303,766	303,563	300,229	
Both Sexes	15 - 19	49,316	43,485	39,040	39,750	40,466	39,954	36,240	40,047
	20 - 24	78,860	66,838	51,556	52,983	56,608	57,149	56,025	50,438
	25 - 29	75,321	78,390	60,634	54,839	57,404	61,849	63,027	61,935
	30 - 34	59,920	76,285	71,739	59,555	54,211	56,613	60,845	61,815
	35 - 44	89,418	112,145	132,365	143,354	133,885	117,128	113,562	119,779
	45 - 54	72,297	73,846	85,098	101,394	122,970	136,314	127,970	112,413
	55 - 59	31,228	30,321	29,069	30,742	36,838	44,264	52,516	53,190
	60 - 64	22,041	21,793	20,164	19,851	20,549	24,481	29,226	34,424
	65 - 69	8,796	8,638	9,170	9,466	8,562	8,627	10,032	11,660
	70 +	<u>7,058</u>	<u>7,446</u>	<u>9,495</u>	<u>8,027</u>	<u>8,405</u>	<u>8,459</u>	<u>8,595</u>	<u>9,347</u>
Total, 15 & older	494,255	519,187	508,350	519,960	539,898	554,838	558,038	555,050	

Total Potential Labour Force
Non-Indian Participation Rates: Increasing as per Appendix 3
Indian Participation Rates: Full Parity (constant prior to 1998)

Annual Averages:

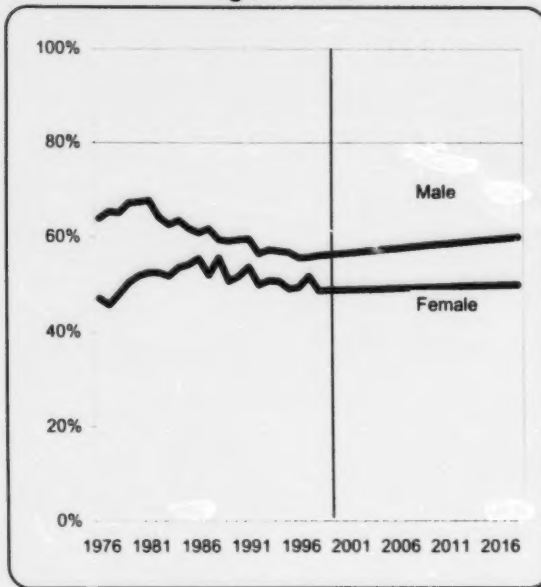
		<u>1983</u>	<u>1988</u>	<u>1993</u>	<u>1998</u>	<u>2003</u>	<u>2008</u>	<u>2013</u>	<u>2018</u>
Female	15 - 19	21,690	20,426	17,799	17,802	18,024	17,745	16,226	17,829
	20 - 24	34,870	30,135	23,374	23,419	24,918	25,204	24,876	22,834
	25 - 29	30,546	33,812	27,460	24,773	26,079	28,130	28,887	28,676
	30 - 34	23,477	33,161	32,048	26,996	24,648	25,939	27,983	28,783
	35 - 44	37,051	48,617	60,938	66,620	63,468	56,176	54,987	58,549
	45 - 54	29,146	31,207	38,937	46,445	57,117	64,936	62,515	55,919
	55 - 59	10,900	11,772	12,010	13,743	16,596	20,263	24,816	26,205
	60 - 64	7,096	7,867	7,740	7,886	8,481	10,322	12,695	15,654
	65 - 69	1,915	2,309	2,734	2,242	2,206	2,390	2,928	3,623
	<u>70 +</u>	<u>1,028</u>	<u>1,559</u>	<u>1,887</u>	<u>1,401</u>	<u>1,605</u>	<u>1,750</u>	<u>1,897</u>	<u>2,146</u>
	Total, 15 & older	197,720	220,865	224,928	231,327	243,142	252,855	257,808	260,219
Male	15 - 19	27,626	23,059	21,241	21,948	22,442	22,209	20,014	22,217
	20 - 24	43,989	36,704	28,182	29,564	31,844	32,354	31,939	28,712
	25 - 29	44,776	44,577	33,174	30,066	31,440	33,999	34,700	34,217
	30 - 34	36,443	43,124	39,691	32,559	29,731	31,038	33,523	34,208
	35 - 44	52,367	63,528	71,427	76,733	70,812	61,893	60,146	63,632
	45 - 54	43,151	42,638	46,161	54,949	66,124	72,137	66,946	58,863
	55 - 59	20,328	18,548	17,079	16,998	20,319	24,223	28,169	27,859
	60 - 64	14,945	13,927	12,424	11,966	12,111	14,272	16,770	19,220
	65 - 69	6,881	6,329	6,435	7,225	6,370	6,273	7,173	8,167
	<u>70 +</u>	<u>6,030</u>	<u>5,887</u>	<u>7,608</u>	<u>6,625</u>	<u>6,806</u>	<u>6,724</u>	<u>6,728</u>	<u>7,251</u>
	Total, 15 & older	296,535	298,322	283,422	288,633	297,999	305,122	306,109	304,345
Both Sexes	15 - 19	49,316	43,485	39,040	39,750	40,466	39,954	36,240	40,047
	20 - 24	78,860	66,838	51,556	52,983	56,761	57,559	56,815	51,546
	25 - 29	75,321	78,390	60,634	54,839	57,519	62,129	63,587	62,893
	30 - 34	59,920	76,285	71,739	59,555	54,380	56,977	61,506	62,991
	35 - 44	89,418	112,145	132,365	143,354	134,280	118,070	115,133	122,181
	45 - 54	72,297	73,846	85,098	101,394	123,240	137,073	129,461	114,782
	55 - 59	31,228	30,321	29,089	30,742	36,916	44,486	52,985	54,064
	60 - 64	22,041	21,793	20,164	19,851	20,592	24,593	29,465	34,874
	65 - 69	8,796	8,638	9,170	9,466	8,576	8,662	10,101	11,790
	<u>70 +</u>	<u>7,058</u>	<u>7,446</u>	<u>9,495</u>	<u>8,027</u>	<u>8,411</u>	<u>8,475</u>	<u>8,625</u>	<u>9,397</u>
	Total, 15 & older	494,255	519,187	508,350	519,960	541,142	557,977	563,917	564,564



Appendix 3
Actual and Forecasted Non-Indian Participation Rates

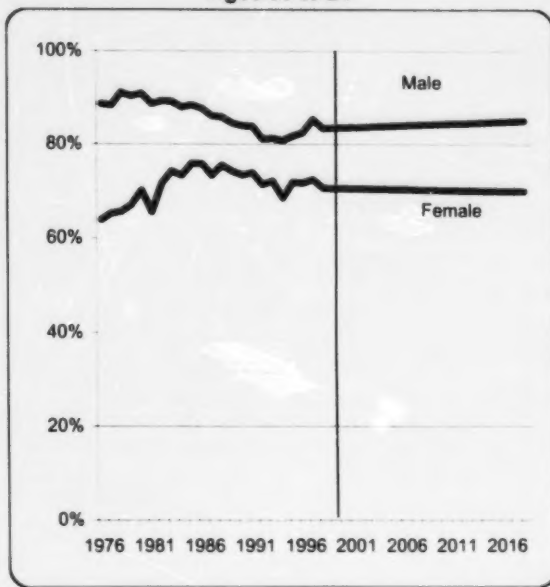


Ages 15 to 19



	<u>Female</u>	<u>Male</u>
1978	48%	65%
1983	52%	63%
1988	56%	60%
1993	51%	57%
1998	49%	56%
2003	49%	57%
2008	49%	58%
2013	50%	59%
2018	50%	60%

Ages 20 to 24



	<u>Female</u>	<u>Male</u>
1978	66%	91%
1983	74%	89%
1988	75%	86%
1993	72%	81%
1998	71%	83%
2003	70%	84%
2008	70%	84%
2013	70%	85%
2018	70%	85%

Ages 25 to 29



	<u>Female</u>	<u>Male</u>
1978	56%	96%
1983	68%	96%
1988	74%	94%
1993	78%	91%
1998	79%	92%
2003	80%	93%
2008	82%	94%
2013	83%	96%
2018	85%	97%

Ages 30 to 34



	<u>Female</u>	<u>Male</u>
1978	52%	98%
1983	65%	96%
1988	78%	96%
1993	78%	95%
1998	78%	93%
2003	80%	94%
2008	81%	96%
2013	83%	97%
2018	84%	98%

Ages 35 to 44



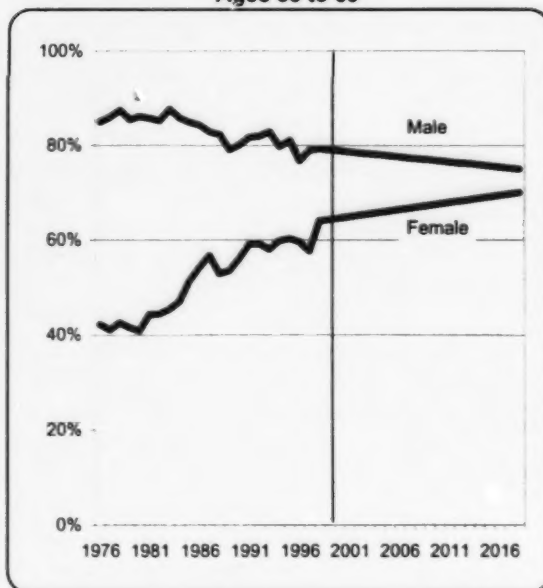
	<u>Female</u>	<u>Male</u>
1978	59%	97%
1983	71%	97%
1988	77%	96%
1993	85%	95%
1998	84%	95%
2003	86%	96%
2008	87%	96%
2013	89%	97%
2018	90%	97%

Ages 45 to 54



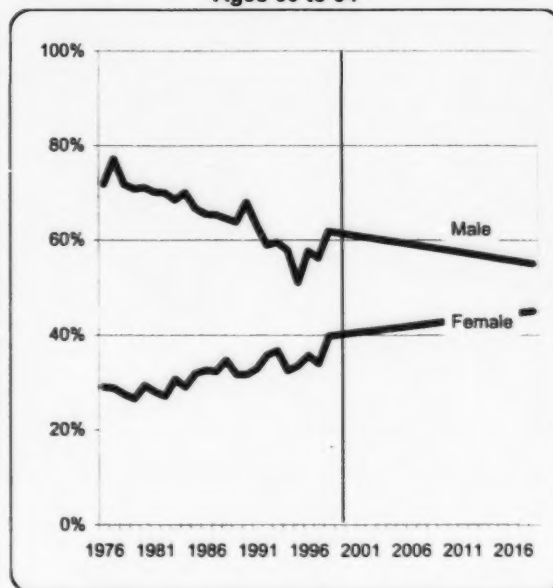
	<u>Female</u>	<u>Male</u>
1978	56%	95%
1983	65%	94%
1988	70%	93%
1993	80%	92%
1998	81%	91%
2003	83%	92%
2008	85%	93%
2013	88%	94%
2018	90%	95%

Ages 55 to 59



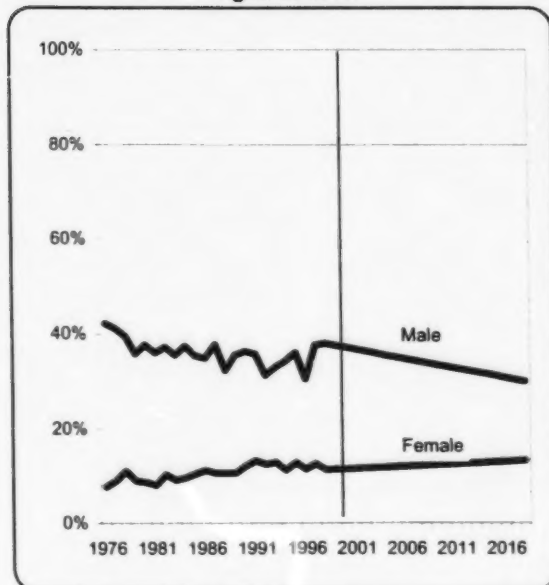
	<u>Female</u>	<u>Male</u>
1978	43%	87%
1983	46%	88%
1988	53%	82%
1993	58%	83%
1998	64%	79%
2003	66%	78%
2008	67%	77%
2013	69%	76%
2018	70%	75%

Ages 60 to 64



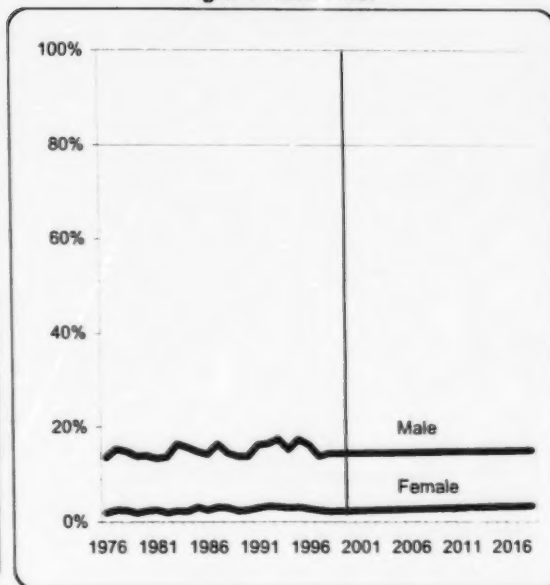
	<u>Female</u>	<u>Male</u>
1978	28%	72%
1983	31%	68%
1988	35%	65%
1993	37%	60%
1998	40%	62%
2003	41%	60%
2008	42%	58%
2013	44%	57%
2018	45%	55%

Ages 65 to 69



	<u>Female</u>	<u>Male</u>
1978	11%	40%
1983	9%	36%
1988	11%	32%
1993	13%	33%
1998	11%	38%
2003	12%	36%
2008	12%	34%
2013	13%	32%
2018	13%	30%

Ages 70 and older



	<u>Female</u>	<u>Male</u>
1978	2%	15%
1983	2%	17%
1988	3%	15%
1993	3%	18%
1998	2%	15%
2003	2%	15%
2008	3%	15%
2013	3%	15%
2018	3%	15%